Experiences of Health Information Managers with 20+ Years of Experiences in the Complex and Ever-Changing Healthcare Environment

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Dedication

This thesis is dedicated to Tom and Dorothy Valerius, deceased parents, who valued and encouraged education and to whom I dedicate this final work. You are always present and are my constant guides.

Abstract

This hermeneutical study examined the lived experiences of health information managers with 20+ years of experience in the complex and ever-changing environment of healthcare. The purpose of this research was to gain a deeper understanding of the experiences of credentialed health information managers with 20+ years of experience who have experienced moving from a paper-based medical record system to an electronic health record system. Eight credentialed health information managers were interviewed. They shared their experiences over the past 20+ years in the health information management profession.

I conducted individual interviews of each participant. Four themes emerged and were emailed to the participants for verification. Four major themes were agreed upon: 1). Commitment to Data Quality, 2). Managing a Workforce in the Electronic Health Record environment, 3). Gender and Sexual Orientation Bias Experiences, and 4). Commitment to Collaboration.

The knowledge gained in this study may help practitioners who are implementing electronic health record systems, other healthcare personnel who are implementing electronic health records, human resource development practitioners working in healthcare environments, and educators working with students in accredited health information management programs.

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CHAPTER 1

INTRODUCTION

The primary purpose of this research was to gain a better understanding of how change has affected the health information managers who have worked in the profession of health information management for 20+ years and have managed the transformation to an electronic health record from a paper-based health record. Health information managers are "conventionally the business managers and custodians of data and information in healthcare" (Zeng, Reynolds, & Sharp, 2009).

Research Question and Definition of Health Information Practitioner

This is a phenomenological research emphasizing hermeneutics. There was one question that was asked: What experiences have you had during your 20+ years as a credentialed health information management practitioner? Although the question was left open to answering any way that the participants wanted, they chose to focus on professional experiences.

A credentialed health information management practitioner is a person who has completed the requirements of an accredited program. After completion of the program, the person may sit for a national certification examination to become either a Registered Health Information Administrator (RHIA) or a Registered Health Information Technician (RHIT) (American Health Information Management Association, 2013).

Over the last decade, many health information managers, along with other healthcare professionals, have overcome the huge learning curve of moving from a paper-based system to electronic systems for maintaining health records. Whether viewed as a

threat or growth with a new opportunity, the changes from a paper-based medical record to an electronic health record are stressful to individuals in the health information management department. Throughout this study, the terms for the health information management department may also be stated as medical records department or file room, which are common terminologies used to describe the place where processing of medical information has occurred. In larger institutions, this department is referred to as the health information management department. Smaller institutions still refer to this area as the medical records department.

Paper-based Medical Records vs. Digital or Electronic Health Records

A paper-based medical record has been the traditional tool for communication among healthcare workers who are managing a patient's care. The paper-based medical record is also often called the chart, which refers to the handwritten notes or charting of the physician and other practitioners in the medical record. I entered the field in 1971 as a student worker. The paper-based medical record was comprised of handwritten notes of physicians and nurses who wrote in the record. This included handwritten orders for medications. Other documents in the record were typewritten reports of x-ray findings, laboratory report findings, and so on. The physicians had started to dictate some reports, like the history and physicals (which included the patients' overall history and then a discussion of the symptoms of problems with the body systems), discharge summaries (a cumulative report of the healthcare visit), and operative reports (a description of operations performed). They did the dictation on cassette tapes, which then were transcribed in the medical records department. These transcribed reports were hand

delivered to the nursing stations whenever possible. Policies were developed around the completion of medical records. If a physician forgot to sign a medication order, for instance, a medical record technician or clerk would flag the page where the order needed to be signed. The physician was notified that they had incomplete records to indicate that they forgot to sign a document. The physician would come to the medical records department and complete the records. This is one example of a traditional and basic process of the interaction between the medical records department and the physician. Many other functions of the medical records department were handled in this same tedious paper-based system.

The role of the health information management professional was that of one of the many handmaidens to the male-dominated physician. Although some of the functions of the health information manager have drastically changed, there is still room for change in seeing the health information manager less as a support and more as the information expert.

Artifacts of the Paper-based Medical Record

The paper-based medical records department in the 1970s, when most of the participants began their careers, had many manual artifacts. File cabinets were used to store records for physicians to complete. Transcription equipment included recording devices on cassette tapes for physicians. Electronic typewriters were used with white-out solution to correct errors on medical reports. Carbon paper was used to provide a copy of a report to the physician's office. Stamps with physician signatures were used to sign reports. Any registry system, for instance, a surgical registry by surgeon name was

recorded by hand onto a paper-based system. The patient index (information about the patient's sociological background, dates of admission and discharge, medical record number, etc.) was on 3x5 index cards. Medical records were in manila folders, and it was common for patients to have many folders, all of which were pulled when a patient came into the hospital so a physician could examine the records before treating the patient.

Work Processes in a Paper-based Medical Record System

When a patient was discharged, the current record was physically retrieved from the nursing station, and a clerk would put the record in a certain order, according to the facility's procedure. Another person would analyze the record, checking for missing physician signatures or missing documents and use a checklist to inform everyone working on the record of what needed to be done before the record was complete and could be stored in a permanent file room. This checklist or deficiency list would tell the doctor what they missed--reports to be transcribed, documents to be signed, and so on. Once a physician completed his or her part of the record, a medical coder would code the record. Usually, another person would post to the registry the medical code so that, when someone wanted to do research, the registry would be used to pull the medical records for use in the research.

Fast Forward to Today's Systems

Fast forwarding to today's environment, paper-based medical records are rapidly changing to an electronic health record. Many electronic records are really hybrid, incorporating scanned written notes along with integrated direct digital input (e.g., physician orders). Abdelhak, Grostick, Hanken, and Jacobs (2007) stated:

> A scanned document, however, is really only as legible as the original handwriting. Yet, in many systems, one can magnify portions of the scanned document, but this is an extra step that takes time and should not be considered a normal practice. (p. 177)

In some electronic health record systems, no handwritten scanned notes are allowed. This means, then, that a person who documents in the medical record does so by word processing their comments directly into the record. Many of the medical technologies used in healthcare today have the software to integrate results directly into the electronic system. For instance, the results of a computerized axial tomography (CAT) scan will be sent from the software program operating the CAT scan directly to the electronic health record system. Individual departments will have their own software programs for analyzing data. All of those software programs must be interoperable with the overall electronic operating system. This study will not address these technical issues.

Health information managers understand the legal ramifications of an illegible record. Part of their education includes the fine details of the health record as a business and legal record/document. When documents are illegible, patient care may suffer, mistakes made, and lawsuits ensue. When many electronic health record systems were designed and built, however, the emphasis was on the physician needs for making an easy change to a major process. So, the back end processes, for instance, those directed by the health information manager, were often ignored. As we move into an era of what is now called big data (large amounts of digital data that are accessible for research, legal, and

patient care purposes), we need to consider that human errors affect data quality. Hoffman and Podgurski (2013) stated:

> Because of clinicians' workloads, poor user-interface design, and other factors. EHR data is (sic.) surprisingly likely to be erroneous, miscoded, fragmented and incomplete. (p. 56) Busy clinicians sometimes type quickly and invert numbers, place information in the wrong patient's record, click on incorrect menu items, or copy and paste narrative from prior visits without carefully editing and updating it. (p. 57)

As stated earlier, in more sophisticated electronic health record systems, direct entry into the health record is done by the physician. In government certified electronic health record systems, physicians order medication through an electronic system that connects to the pharmacy. In addition, many physicians and others on the healthcare team will directly enter their progress notes of the patient. When a physician uses the electronic technology in this way, the system will electronically sign the documents with the physician's electronic name and number. Similarly, any dictated reports will be managed in a digital dictation system, and transcribed reports will be sent directly to the physician for electronic signature and placement in the record. Some physicians are using speech recognition software instead of dictation. The capture of health information electronically influences the ability to use the data more efficiently and effectively for research, reimbursement, and policy development.

The health information technology website (Government Health IT, 2012)

provides information on the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, which has placed financial incentives for most healthcare organizations to move towards an electronic health record system. In fact, for those organizations that receive federal funding, it is a necessity to continue receiving Medicare and Medicaid funding. This directive impacts changes in organizational processes, relationships, and training. The magnitude of change is at warp speed. Managers and human resource development personnel are called to utilize their training skills and be change agents for health care.

Human Resource Development Needs Identified

The conundrum that faces health information managers is the reinvestment of resources to train employees on new work flow processes and procedures that are forced by the electronic health record when they may not have the expertise or skills themselves in this area. Human resource development at the department level is driven by the need to advance employee skills in technology. As pointed out in Cohen and Haft (2004), there are societal concerns from the use of medical technology.

> New technologies may affect society…such as by altering the face of the healthcare workforce through the creation of new occupations and the simultaneous abandonment of others...shifts in public or private investment can have profound implications for educational policy…and for individual's career decision. (p. 36)…. In addition, the training needs of all staff-including physicians-must be ascertained and addressed through appropriate education. (p. 116)

Even as employees need training relative to the change to the electronic health record, the health information manager must also maintain their skills and knowledge. This added layer of development is necessary to move the vision of a digital electronic healthcare environment to a reality.

To manage the development of human resources, many organizations are utilizing electronic learning (eLearning) tools. This provides opportunities for web-based education for all levels of the organization to achieve technology and information skills. Brown, Murphy, and Wade (2006) reviewed several studies about eLearning and found:

> There was consensus on only one point. All participants agreed that eLearning is more effective when combined with traditional forms of learning i.e. that a 'blended' learning solution is preferred.… What is clear is that eLearning is here both for large and small organizations, it is here to stay, and that there are a number of HRD professionals who have not as yet accepted this. This requires a mindset change among those HRD professionals. (pp. 422-424)

Whether a healthcare organization is large or small, they will need to accept that e-learning is here to stay, but also that hybrid in-person learning may be needed. Such is the new need in healthcare as dramatic change from a paper-based medical record to an electronic health record has perplexed human resource development teams and department managers.

In the US, only 12% (of 2,952 institutions) of hospitals have electronic health records (Jha et al., 2009). The HITECH Act requires all federally sponsored providers to adopt one by 2014. Because of this immediate and critical change, the need for human

resource development, learning, and change management is significant for the health information managers who are expected to lead and manage new systems.

Understanding the philosophy and core theories of human resource development are keys to this unfolding workforce issue in healthcare. Although there are many that we may learn from, Swanson (2001) suggests that psychological, economic, and systems theory are important.

- Psychological theory captures the core human aspects of developing human resources, as well as the socio-technical interplay of humans and systems
- Economic theory captures the core issues of the efficient and effective utilization of resources to meet productive goals in a competitive environment
- Systems theory captures the complex and dynamic interactions of environments, organizations, work processes and group/individual variables operating at any point in time and over time. (pp. 308-309)

These theories as well as many others need to be recognized, studied and discussed in order to make sense of the dynamics of the healthcare system. The experiences of health information managers as the workflow dramatically changes cannot be ignored during the implementation of an electronic health record system. There is ongoing US discussion about the economic crises in healthcare. The hope of the HITECH Act is to solve some of the economic concerns. But this will be done only if there is buy-in to the core issues of efficient and effective utilization that an electronic system brings to the healthcare system.

The system theory truly captures the reality of the health information

management department employees and overall healthcare organization during this chaotic period of change. Swanson (2001) stated, “the system theory principles for practice are organic” (p. 309). For health information managers, I believe this can be true if they are able to understand how change is affecting them. It is startling to think that many of today’s hospitals do not have electronic health records, when the entire world in its complexity has Internet access capabilities. The healthcare industry and the functional entities within it, are furiously trying to catch up with the other industries.

In Jha et al. (2009), key results reflected similar issues as Swanson’s (2001) theories when discussing barriers to facilitators of the electronic health record:

- Psychological:… resistance on the part of physicians: 36 %, unclear retention on investment 32%
- Economics:… inadequate capital 74%; maintenance 44%
- Systems:... lack of availability of staff with adequate expertise in information technology 30%. (p. 1632)

With the adoption of the electronic health record, new learning is essential. There is a shortage of healthcare workers with training in working with an electronic health record system. The responsibility of the health information manager during this change is tremendous. They must seek their own new learning about technology, the massive change in workflow and job functions, while encouraging their staff to learn new skills as well. Some may resist learning as Andersen and Anders (2007) state “as an expression of defense: the employees may have discovered strategies to defend their work and their employment situations and/or defend the functionality of their work.” (p. 18)

It will be the work of the manager to help the employees in the department to overcome their defenses. But, the health information manager many with 20+ years of work behind them, will need to overcome their own defenses as well. This study will seek to understand those with 20+ year experience and how the many changes affect them. It is anticipated that their 20+ years of experiences in many of the other changes in healthcare will have prepared them for this current expansive challenge

Previous Research on Health Information Managers

There has been no identified research on the experiences of the major healthcare organizational change of a paper-based medical record to an electronic health record and the individual health information manager. The unintended consequences that have occurred in relation to the implementation of electronic health record systems have not been studied from the perspective of individual long-term health information managers.

Purpose and Significance of Study

The healthcare system in the United States has often been spoken of as broken. The HITECH Act provides financial incentive plans to healthcare facilities to implement electronic health record systems. The hope is that this will improve documentation and greater communication among practitioners treating a patient, which will result in better care and reduced cost.

Building the Workforce in Health Information Management

In Building the Workforce for Health Information Transformation (2006), the action agenda from the report encouraged healthcare employees to

- Adopt or lead adoption of health information technology tools that could be used (or are being used) in their workplace, familiarize themselves with the technologies, and understand changes to work processes
- Identify gaps in their own knowledge and seek ways to fill them through additional education and/or technology training and embrace lifelong learning
- Help "demystify" the health information process for their patients. Eliminate barriers to access and unnecessary complexity that confuses consumers
- Share best practices in health informatics and electronic health record implementation lessons learned with other members of the healthcare community. (p. 11)

This report is significant because of the collaboration between the American Health Information Management Association and the American Medical Informatics Association as the two professional organizations realized the impact their combined knowledge and expertise could lend to the development of a workforce to support the electronic health record.

This workforce report provided ongoing discussion for health information management professions to provide leadership in the adoption of the electronic health record. Coupled with the HITECH Act of 2009, health information managers can no longer take a back seat and must step up to the decision table in order to move the electronic health record agenda forward.

A workforce shortage in the health information management field was identified

in the report. As in many professions, the baby boomers are affecting this field. Desai (2013) stated:

> It is estimated that approximately 6,000 new HIM workers are needed each year to fill new positions and replace those who retire or leave the field. While older members are retiring, the profession has been slow to replace and prepare younger members and early careerists to fill their vacant spots. Engaging the younger generation and mid-careerists will require the use of new avenues of communication as well as providing information in ways that support instant gratification. (p. 49)

Documenting the knowledge of experienced health information managers who leave healthcare systems is practical and important for providing a smooth transition for new leaders. Often, we think, when an electronic system is implemented, the old work processes are no longer important. In fact, the anecdotal comments of managers in current practice are that, during the process of the adoption of an electronic health record system, knowledge of the work processes are not known by the developers of the system. This is a critical loss of knowledge. As mentioned earlier, the business of managing the health data is the role of the health information manager. The health record is the legal document of the healthcare organization. Not including the knowledge of the health information manager during the decision making process of implementation of an electronic health record system is a critical error on the part of the organization.

Anecdotal Conversations

Throughout the last few years, I have listened to anecdotal comments made by friends and colleagues. They are fearful not only because of the major changes in managing new work flow processes, but also because they feel that they are not technologically savvy enough to lead others through the transition to the electronic health record. We have discussed the fearfulness of their inability to be a part of a new learning environment. There is also a fear that the electronic health record will destroy the sanctity of the privacy of the data being collected on an individual patient. The health information manager has been the gatekeeper of the information; and they are proud of that role.

Although no research has been located on this area of health information management, studies have been collected on the emotional aspects of change that have occurred for physicians who have moved from a paper-based medical record to an electronic health record system.

Significant Research about Physician Adaption to Electronic Health Record

Recent research provides us with a healthcare reference point about unintended consequences during the implementation of the electronic health record experience by physicians

Sittig, Krall, Kaalaas-Sittig, and Ash (2005) analyzed the emotions of physicians making a change to order prescriptions using a computer-based system rather than a paper-based system. Although the authors did not draw specific conclusions about the 50 physicians they viewed or interviewed, they noted that:

> One's emotions and resulting moods reflect on a person's ability to attend to complex and cognitive tasks. (p. 562)
>
> Further:
>
> the number of instances of positive emotion resulting from the CPOE system was very small…the most one can expect from a group of overworked employees asked to undergo a major change is that they develop some level of understanding or tolerance for the system. (p. 563)

I believe we can learn from the research of Sittig et al (2005). We do not know how the change from a paper-based medical record has affected the health information managers with 20+ years of experience. We do know that they are now being forced into a change. As an educator of 30+ years, I know that change includes being open to new learning. If managers refuse to lead change, it will happen without them. The lack of leadership, as discussed earlier, influences critical decisions that will affect the quality of patient care that the organization provides. The leadership of the human resource development team, along with the department managers, need to encourage a strong learning organization, which is inherent in the success of extensive organizational changes. A learning organization is a key to the change process.

As discussed by Abdelhak et al. (2007) and Hoffman and Podgurski (2013) technology in healthcare is not a new thing. Physicians have used the results of computerized laboratory results, radiologic exams and magnetic resonance imaging (MRI) for decades. In health information management departments, computerized data entry, electronic transcription systems for capturing dictation of clinicians, use of

computerized medical coding and billing systems have also been well established and accepted as important processes in healthcare business.

Traditional Medical Records Changing

The paper-based medical record has been the traditional communication tool among the healthcare team. It has been maintained as a library book; filed away unless requisitioned. It has been available only to the privileged and often guarded even from the patient. I believe it has had a mystique of secrecy, and secrets are not to be broken. It has provided for the healthcare team not only a look into the mechanisms of how the body works, but also, somehow, the mind and spirit of the individual patient that makes them who they are. It has documented the life cycle of the individual patient. In my experience and in anecdotal discussions with other health information practitioners, the electronic health record has disrupted the mystique.

As with the reading of a paper book, the paper-based medical record is tactile. In the paper-based medical record system, the record is physically touched. In the process of this documentary of the patient's illness, there is a worker in the health information management department who reviews it for completeness and quality.

Oftentimes, this worker must communicate directly with a physician during the completion process of a paper-based health record. But as the landscape in healthcare continues to change with digital records and electronic access the physician has a web-based secure portal where the communication about record completion occurs. The physician is able to complete records on-line in real time, and the clerical and technical workers do not need to work with the physician face to face anymore.

As is common in many other businesses today, I am observing that many clerical and technical workers in health information management departments are leaving the traditional workplace and working remotely at home. This cultural change for the worker is also a change for the manager. The human resource development team and the managers need to work together to learn new ways to deal with this cultural change.

The health information manager with 20+ years of experience has been formally educated to manage in primarily paper-based medical record systems. The workers in the department have mostly worked on-site, where new and ongoing education for employees takes place. The organizational culture is lived daily. The cues about the organizational culture are visible with posters on confidentiality, quality care, spirituality, specialty areas—all are reminders of the healthcare environment and the community in which they work. The electronic health record brings significant change to the organization, and I have heard many informal conversations, and have observed myself that workers are struggling with the changed work environment.

My Personal Interest in Topic

In a phenomenological study such as this, it is important for the researcher to bracket her previous experiences and perspectives. As a result, it is useful in this bracketing process to outline in some detail my experiences and background related to this topic.

I have been credentialed as a health information professional since 1973. I have successfully completed national certification exams and currently use the credential RHIA (Registered Health Information Administrator).

My interest in healthcare started during my teenage years, and I became a candy striper or volunteer at a local hospital. During my time at the hospital I investigated some potential educational opportunities. Early on, and after being on nursing stations as a candy striper, I knew that I did not want to work directly in patient care. I did not feel I would enjoy dealing with the 'blood and guts' of working with the patient. I happened across the medical records department where I found a brochure on the field of medical records. Concurrently, my father found an article in the *Readers Digest* talking about this new profession and technical training available. After gaining information on where to attend college for a degree in this area, I embarked on a professional journey that has lasted me four decades.

Minneapolis (aka Abbott Northwestern Hospital).At that time, Northwestern Hospital My first job in the field was as a student worker. I worked at Northwestern Hospital in was separate from Abbott, and the medical record department was rather small. The medical records were filed in the department, but also in the basement of the facility. As I was a student worker, I often worked weekends and did a variety of jobs; physician deficiencies (checking for items the physician forgot to document or sign), transcription (typing out reports), medical coding (assigning prescribed numbers to a medical diagnosis), updating other patient information, and descending to the basement to find archived records needed for incoming patients. The department was a traditional, paper-based department. The typewriters were electric (not electronic). Working with the health record, spurred my interest in the profession.

After graduating from an academic technical/associate health information program, I spent a few years in a technical position at North Memorial Hospital. I checked the medical records for physician deficiencies, assembled records in a prescribed order, and did some medical coding. This facility was also paper based but had started using a more sophisticated filing system that was an electric system for storing incomplete patient records. With a push of a button, the file would spin, and the medical record would be easily found. It was high technology at the time. At the time, it seemed remarkable to have this basic technology that positively changed the workflow.

While in college, the Mayo Clinic's medical record system was lauded as one with advanced technology. I was interested in the advancement of technology, and toured the clinic in order to view the management of a pneumatic tube system that changed the workflow of moving records between departments. It was totally different from hand carrying records to a nursing station, for instance. What was stimulating to me was the drive of Mayo to be forward thinking on operations that would move a record in order to provide greater access to clinicians to treat patients. This initial attempt to get data where it needed to be to improve patient care was fascinating to me

I felt that I was a part of the healthcare system even though I did not care for the patient directly. I felt that what I did was important to the care of the patient because I made sure the medical record was completed by the physician, was kept private and confidential, and was used in research to promote quality care and new solutions. I considered myself a patient advocate.

Because I found the work I did at North Memorial very satisfying I completed a bachelor's degree in Health Information Administration. During this educational experience, I went on a practicum to the Veterans Administration Medical Center (VAMC). The VAMC stored all of the paper-based medical records in a large room, and records were sent from one facility to another throughout the nation as veterans' healthcare needs dictated. Even though the VAMC was a complex system and the dissemination of the medical record throughout the nation was difficult, there was a buzz of excitement that a computerized medical record system was around the corner.

In 1974, Patricia Pierce, a primary instructor, who was seen as a forward thinker in the medical records field had completed a sabbatical to the East Coast where huge strides in capturing some documents in a computerized format were being accomplished. I specifically remember her saying in class one day, "In ten years we will have a computerized health record." We were all excited to be a part of the changing environment for capturing health information using computers.

Following graduation, I practiced at the University of Minnesota Hospitals (UMH). The UMH had begun to develop a home-grown computerized system mainly for capturing data for billing and medical coding purposes. Home-grown systems are now referred to as legacy systems. The UMH computer system also captured laboratory results and x-ray reports. There were more computerized administrative reports for decision making and planning. The medical record department personnel abstracted data from the medical record and submitted it to an off-site company for data analysis and reports. This was the beginning of an era in which medical coding and the analysis of the

coding became more important. The computerized reports were used to extract data for research and assist in administrative decisions.

At the University Hospital, I managed many functional areas, including release of medical information, abstracting, physician incomplete processes, and medical coding. I was also involved in projects related to the design of documents to capture patient encounter information for billing and financial management which would be processed into the legacy system. At the time I did not realize I was a part of a technological transformation.

Besides the work in data capture, I managed many department workers, and perhaps it was the first time that I realized, as one of my colleagues used to say, that "the file room clerk who was paid the least was the most important person in the department and should have been paid the most." This person was responsible for making sure the medical record was filed correctly so that, when the patient came back to the hospital, his or her record could be found and used by the healthcare team. A common problem in a medical record department at that time was the missing record.

It was also at this hospital that I realized the politics of physician power. The physicians were known for research and the grant funds that came with it. Depending on their specialty, they were perceived to be more powerful. It was in the mid-1970s that a new health information function was enforced; that is, taking away physician power to admit patients to the hospital if they had incomplete records. I was in charge of designing and implementing the system that included sending letters to physicians to complete their patient's records. This caused quite a raucous with the physicians. It was then that a very

famous oncologist at the time, told me that the medical record department was where it belonged, in the bowels of the institution. Somewhere, I still have his letter.

That learning experience was not isolated. A few years ago, I had a discussion with a physician with whom I worked. During this discussion he told me his attitude towards the health information management department workers of today was that we were the record police because we maintained that documents needed to be completed and legible. This long-term negative image of the health information management personnel played an important role, I believe, in the failure of bringing the health information manager to the table to plan the implementation of the electronic health record. Our knowledge base about the flow of information from the registration of the patient to the revenue cycle process was misunderstood.

As I moved along in my career, I began a Masters in Public Health in an interdisciplinary program, including management, computer science, and education. I found that the components of public health and teaching appealed to me, and I left the hospital environment to become a teacher and later director of certificate, associate's, bachelor's, and now graduate level health information management programs. I continued to practice in the real world through consulting. I was active in the local and national professional organizations. I kept my knowledge and skills as current as possible through work with community hospitals, the Minnesota Correctional facilities, the Medical Board of Minnesota, and so on. Through my 30+ years of educating professionals, I listened to the stories of friends in the field.

As an educator, I remember the thrill of getting a grant from Radio Shack for a basic computer in 1979. We hired someone to try to simulate a computerized health record. In the1980s, we took the challenge to develop a certificate program that would add more medical coders to the healthcare system.

The 1980s brought a huge change in the reimbursement system for Medicare and Medicaid recipients. Prospective payment systems, based on clinical documentation in the medical record, and the medical coders interpretation of the documentation, became a critical focus for departments. Although I remember this to be a particularly stressful time for health information managers because of the reliance on medical coders to secure payment for claims for healthcare, it was also a time where the opportunity to raise visibility and respect was important to the growth of the profession

The 1990s brought significant emphasis on quality improvement and new legislation around privacy. The impact of the internet, the growth of electronic interchange, the need for faster and more reliable data began the growth of more computerization of the health record. We lived through the scare that computers would shut down at 12:01 a.m. on, January 1, 2000. The continued reliance on computers in health care operations and medical technologies has continued.

When the computer age hit healthcare, we were training students to move forward in the information age. Throughout the 1980s, 1990s I worked with a diverse student population of single mothers, hearing and visually impaired, students with multiple learning difficulties and mental health issues, international students, and racially diverse

students, especially with the influx of Hmong and later immigrants from Somalia. It was exhilarating.

Much of the world of education was an experience of change similar to the changes occurring in healthcare. As Director of programs in this area, I was constantly changing curriculum and laboratory activities to prepare students for the workforce. The American Health Information Management Association conducted Job Analyses many times to direct those changes in the curriculum. I took on second jobs in medical coding to understand better the process, put myself on mini-practicum experiences, and plan many student trips to institutions to learn about the changes.

In higher education, I experienced some of the same political issues of health information managers as in practice. The first 30 years that I taught in college-based programs, the college trained nurses, physical therapists, occupational therapists, and other healthcare professionals. The health information management programs were in the shadows; everyone knew we handled the medical records, but no one really knew what that meant. There was some reliance on our knowledge in the computerization of the healthcare environment, and we were brought to the table for some discussions. However, we were most likely to be called upon for our knowledge of charting in the medical record, or medical coding and billing. The lack of knowledge of the importance of the field or even the basic knowledge of the program was indicated in the omission of the mention of the field in interdisciplinary courses.

Sometime during the late 1980s, and then during a sabbatical in the early 2000s, I was on the road to completing my PhD in education. I began the program when it was

called Vocational and Technical Education, - the philosophy of which I felt was extremely important to the field of health information management and was the roots of my own education in medical records The department name changed over time, but my personal focus of serving the technical worker, and the manager of the technical worker, has not.

Currently, I am the Director of Graduate programs in health information management. This is housed in the Medical Informatics department within the division of a medical school. There continues to be some misconception of the role of the health information manager and the health information management department. There also appears to be a lack of awareness of the department in which I work in with the medical school itself. We are not relied upon to develop curriculum in medical informatics, for instance, for the medical school. It is like we are invisible within our own institution. However, as the roles of health information and informatics draw closer, there is a bond developing among the practitioners in healthcare institutions to recognize each other's strengths.

I have lived my professional life as a healthcare worker. As an educator, my life has been devoted to increasing the quality of healthcare. I have lived through many changes in healthcare and in the health information management field. By far, the change to an electronic health record is the most daunting change. But, as an educator, I have the luxury of reading the research, hearing student stories about the real-world and occasionally working on my own development through consulting, but don't have the same experience of colleagues who have experienced so many changes over the past 20

years. Hearing and documenting their stories will provide knowledge to enrich the educational curriculum for the health information managers.

Summary

The implementation of the electronic health record affects all healthcare workers. However, no known research has been about the experiences of sage health information managers and the change from a paper-based medical record to an electronic health record system. This study provided the answer to the question: “What experiences have you had during your 20+ years as a credentialed health information management practitioner?" Eight health information management practitioners were interviewed.

The primary purpose of this research was to gain a better understanding of how change has affected the health information managers who have worked in the profession of health information management for 20+ years and have managed the transformation to an electronic health record from a paper-based health record

Much discussion has occurred during the past few years about the shortage of health information management workers who have technological skills. I firmly believe that a health information manager has the responsibility to lead the new paradigm of an electronic health record environment and develop the skill set that is needed to actuate this shift in work processes. The theories and practices of human resource development provide a framework to study the challenges of this manager in creating a learning environment for themselves and the workers in the health information management department.

The study of the experiences of the health information managers will positively influence the broader health information profession. It will provide information to educators on the role of the health information managers in the development of the human resources they manage. This information will influence the development of new curriculum in over 150 educational institutions that offer program in health information management.

The health information manager's role transcends to similar roles in the business and information management industries. There are many professions who have information managers as the business managers and custodians of the legal records in that industry. Therefore, this research should be transferrable to other industries and will provide generalized information on human resource development.

CHAPTER 2

PRELIMINARY LITERATURE REVIEW

This preliminary review of literature drew upon general as well as specific healthcare and human resource development concepts and issues that face health information managers in an ever-changing work environment. Healthcare systems are dynamic and face hurdles of external regulations, laws, reimbursement systems, accreditation, licensing, and the list goes on. External forces are often the impetus for organizational change. So it is with the implementation of the electronic health records. What was once an option to the paper-based medical record is now enacted in law through the 2009 Health Information Technology for Economic and Clinical Health Act (HITECH).

The purpose of this preliminary literature review, as with all phenomenological research, is to share what I had reviewed in preparation for doing this study as a form of bracketing my knowledge and information acquired. It is not intended to be a comprehensive literature review. An additional literature review is included later in this dissertation, following a presentation of the findings.

Included in this literature review are materials that discussed the changing roles of health information managers over the last 2 years in the healthcare environment. In addition, the concepts of managing human resource development during critical change were reviewed.

Human Resource Development

Because of the diverse nature of the workforce in healthcare, health information managers as well as other department managers must recognize the importance of creative human resource development. As healthcare re-trains the workforce and re-organizes the workflows that are changed by an electronic health record system, it is essential to keep continuously in mind the role of human resource development partners during the change process. McLean and McLean (2001) stated:

> Human resource development is any process or activity that, either initially or over the long term, has the potential to develop…work-based knowledge, expertise, productivity and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity. (p. 322)

The health information manager, as an example, has engaged in many continuing education processes to benefit the healthcare system and the profession of health information management. In order to maintain the credential of RHIA (Registered Health Information Administrator), continuing education is mandated. (Parker, 2013) The renewed knowledge assures an organization that the RHIA has maintained expertise in order to perform work competently.

As the healthcare environment rapidly changed to digitalized records, mastery of new technological skills was essential. There was a growing emphasis on engaging healthcare workers in electronic or web-based activities. (Benson, and Dundis, 2003, Cook, Levinson, Garside, Dupras, Erwinc, & Montori, 2008).

Along with workers, patients are learning about their health through electronic-portals (e-portals), internet sites, and mobile devices. (Eramo, 2013). Tirado (2011) pointed out that, in a culturally diverse world, the Pew Research Center found:

> Nearly two thirds of African-Americans (64 percent) and Latinos (63 percent) are wireless internet users, and minority Americans are significantly more likely to own a cell phone than their white counterparts (87 percent of blacks and Hispanics own a cell phone, compared with 80 percent of whites). (p.1)

Further:

> The Food and Drug Administration (FDA), in turn, has struggled with determining whether cellular phones and health-related software applications are subject to regulation as medical devices. Congress and the FDA have yet to address the issues surrounding equal and appropriate access to mobile health technologies by vulnerable, culturally low-income communities of color. (p. 1)

Human resource development teams and healthcare workers alike seem to lack the infrastructure to meet the demand for e-learning by the constituents using the healthcare system. Determining the type of learning activities that are to be used is one of economics for the institution. Determining whether in-person or web based learning is more cost-effective and/or culturally useful are just a few of the issues that each institution needs to assess. Clearly, the managers with the human resource development professionals can begin their work by insisting on evaluation and documentation of all healthcare workers knowledge and skills with electronic devices, including the use of

mobile devices. As noted in Mahesh and Crow (2012), managers need to assess how each employee's information technology (IT) skills will be updated when necessary.

Virtual organizations have been enabled with technology. As stated by Henderson and Provo (2006)

> Technology has enabled a continued shift toward virtual organizations. What does this mean for organizational dynamics? How will people develop virtual relationships? How will leaders and managers lead and mange virtually? How will people be motivated in a virtual environment? What will virtual cultures look like and how will they operate? How will technology continue to change the nature of work? (p. 275)

These important questions posed by Henderson and Provo impact human resource development personnel, health information managers, and educators alike. With such a massive move to the electronic health record in the entire healthcare system, we are in a crisis state in assessment, evaluation, and training the workforce.

The HITECH law mandates that healthcare organizations that receive federal funds for Medicare and Medicaid recipients implement a certified electronic health record by 2014. This law includes acute care (hospitals) and ambulatory care (clinics). In 2009, only 12% of hospitals in the U.S. had reported comprehensive electronic health records (Jha et al, 2009). This dramatic increase in implementation within a short period of time, with the workforce shortage discussed earlier, is a time of crisis management in healthcare requiring both training and organization development applications from human resource development.

While these traditional ways of coping with change and crisis management are possible tools for managers to consider, the experiences of others suggest that storytelling may also provide some relief to the stress of extensive change. Kopp, Nikolovask, Desiderio, and Guterman (2011) discussed the use of storytelling during crisis management and suggested it as a human resource development tool:

> Considering that HRD and organizational crisis management as disciplines have great commonality in areas considering organization behavior, merging the concepts of storytelling with its sense making prescription for the purpose of workplace learning, and including the concept of crisis as framework for past, current, and future learning, we propose that storytelling can be used as HRD's learning toolkit in leveraging human capital pre-, during, and post crises. (p. 381)
>
> …The central point here is that storytellers not only direct the themes of the story, but also serve as the gatekeepers of the organizational theory. (p. 385)

This research had health information managers tell their stories about the experience of moving from a paper-based system to an electronic system.

Although there are several theories on change, Lewin's (1951) change management theory seems to apply to the health information management department if not all of healthcare. External forces such as legislation to implement the electronic health record demand that managers unfreeze a work process, make a change, and then refreeze the change. Kopp et al. (2011) reminded us that a strong initial force is required to unfreeze a system. In the case of the electronic health record, the strong external force was the U.S. government's legislation to implement electronic health records.

Even if there were no external mandate to implement the electronic health record, internal organizational processes would suggest that such a change for economic reasons take place in a way to support a humanistic workplace. We can strive to perform a reorganization of the healthcare system and individual department with respect and dignity. Foster (2010), discussed the interrelationships of justice, resistance, and commitment to change within the context of human resource development processes. These important attributes provide wisdom during the ongoing crisis in healthcare. He stated:

> First, fair practices in the implementation of a change have significant associations with employee commitment to change. Managers and supervisors can promote fair implementation processes in many ways. For example, change leaders can encourage and enable employees to share their views and feelings about the change. This could be accomplished with any number of approaches, such as dialogue sessions, interviews, or various other assessment techniques (also referred to as analysis or diagnosis). (p. 34)

Human resource development fair practices outlined by Foster (2010) could provide health information managers with a broadened perspective on change management tools. Practicing these tools could enhance their skills to manage others during this critical time in healthcare. Asking workers about their experiences during the change process and their ideas for work flow process change, for instance, provides opportunities for empowerment of all concerned.

Health Information Managers and Electronic Health Record Implementation

The successful health information management professional has been a person who values and models detail oriented behavior. Detailed analysis of clinical documentation is critical for many of the functions in the health information department, including medical coding and research. Tegan (2005) remarked:

> Many of the qualities needed to manage the paper medical record are the same qualities required to manage the EHR. Attention to detail; ability to compare competing data sources and reach a conclusion about data accuracy; project management; creative problem solving; categorization of data; data reporting; evaluating; understanding, and interpreting regulatory standards. (p. 1)

Patient Safety

The management of the documentation of data in the health record is paramount to patient safety. The health record is the written communication tool that members of a healthcare team rely on when treating a patient. The physical organization of the paper-based medical record collapsed physicians' notes, nurses' notes, laboratory reports, radiology reports, and others, into sections that were reviewed by only one member of the team at a time. In contrast, the electronic health record provides the same grouping of notes and reports available to all members of the healthcare team at one time. This access is expected to lead to better patient care and improved patient safety. In a practice brief, Data Standards, Data Quality, and Interoperability (AHIMA, 2013) it was stated:

> Data quality and consistency are critical to ensuring patient safety, communicating delivery of health services, coordinating care, and healthcare

> reporting. Assessing the quality and consistency of data requires data standards. This practice brief provides health information management (HIM) professionals with a clear understanding of data standards as a tool to enable interoperability and promote data quality. (p. 64)

The Patient Protection and Affordable Care Act of 2010 (aka Affordable Care Act), as well as the Health Care and Education Reconciliation Act of 2010, have effectively changed healthcare since the Medicare Law in 1965. There is an expectation that patient clinical information be available through Health Information Exchanges (HIE). Simply creating and using electronic health records will not be enough proof that patient safety is improved. The HITECH and Affordable Care Act emphasized the use of electronic data and criteria for meaningful use of that data to improve health care quality. As noted in Hertelendy, Fenton, and Griffen (2010), "Data quality, data analysis, and data mining will take on growing importance over the next several years to support best practices and evidence-based medicine across the healthcare spectrum" (p. 2).

As the need for better patient safety in an electronic health record environment became known, the Office of the National Coordinator published the Health Information Technology Patient Safety Action and Surveillance Plan (2013) to further emphasize how the government has developed strategies to focus on patient safety in the electronic health record environment.

Workforce Shortages

Critical to the issues of communication, patient safety, quality of care, and the impact of the electronic health record are changing healthcare environments. In

Workforce 2015: Strategy Trumps Shortage, the U.S. Bureau of Labor Statistics (USBLS) (2010) predicted a significant shortage (2.8 million) in human resources for the 15.6 million healthcare jobs estimated by 2015. (p. 9). In healthcare, this includes a shortage of 109,600 physicians in 2020 and 260,000 FTE registered nurses in 2025 (p. 9). However, the USBLS projected major growths in healthcare occupations in other areas. In an analysis of the Healthcare Information and Management Systems Society (HIMSS) analytics database, Hersh and Wright (2008) found that 40,784 FTE will be needed to support the US healthcare information technology agenda.

The health information professional workforce is also affected by a need for an increased workforce. The American Health Information Management Association and the American Medical Informatics Association have provided some valuable information. In Building the Workforce for Health Information Transformation (2006), it was noted:

> As early as 2001, the US Department of Labor's Bureau of Labor Statistics projected a 49 percent growth in the number of health information management workers by 2013. It is unlikely that this forecast took into account the nationwide initiative to accelerate the transition from paper to electronic health records. (p. 7)

Because of the anticipated tight labor market, predicted shortage of healthcare workers, cost of healthcare, and patient safety, management of human resources takes on special value. The American Hospital Association provided some reflections from their Workforce 2015 (2010) in which they recommended:

> In a tight labor market, the keys to maintain an adequate workforce by number and skills are:

- Redesigning work processes and introducing new technologies to increase efficiency, effectiveness, and employee satisfaction
- Retaining existing workers, including those able to retire, and
- Attracting the new generation of workers. (p. 8)

Work Flow Processes

Work processes for managing the patient's treatment have changed. It is expected that this new workflow has improved the quality of patient care. The verdict is still out on whether it has. McHugh, Garman, and McAlearney (2010) encouraged not only senior leadership to lead an organizational culture that focuses on quality and safety, but also to engage other department managers and workers in this endeavor. In particular, the human resource department was mentioned as a key direct voice to strategic planning and training. Other managers were noted to be involved in aligning their employees and departments to the same goals. As noted in the recommendation above, technologies, e.g., the electronic health record, increase efficiency, effectiveness, and potentially employee satisfaction. Further, retaining existing workers, even those nearing retirement, e.g., health information managers with years of experience, were noted as important, especially during the predicted shortage. Finally, attracting the current generation to the healthcare field, in particular to health information, was noted as critical to maintaining the professional field of health information management.

Workforce 2015 (2010) further recognized the need to help employees to develop skills to work effectively in teams. In addition, it is essential to help managers appreciate and become effective in managing multiple workforce generations. This is not an easy

task and the range of generations in the workplace is complex. The healthcare system is a highly regulated, 24/7, hierarchical system. Work and personal life are expected to be mostly separate as well. Because of this rapid change, human resource development practices are important to use during uncertain times.

The health information management profession is like many healthcare professions prescriptive in nature. The credentialed health information management professional will have attended a program accredited by the Commission on Health Information and Informatics Management Education. Upon completion of a program, a national certification exam is required to use a credential behind one's name. (American Health Information Management Association, 2013) It is difficult to describe the health information management department in a way that engages new workforce members. As the health information management department is still often referred to as the chart room, it has the continued perception of being a non-electronic work environment, which has made it increasingly difficult to attract workers to the profession of health information management. As noted in the Practice Brief of the American Health Information Management Association on the Roles and Relationships of Health Information Management and Information Technology (2008), one of the key strategies of the health information management professional is to be aligned with information technology (IT) departments in healthcare to demonstrate the collaborative relationships that are needed to implement successfully the electronic health record. The key to this collaboration is the understanding of clinical terminology and accompanying national and international

electronic exchange standards that promote data exchange internally and externally to the healthcare environment.

The US healthcare system is a complex system constantly adapting to external laws, policies, and consumer beliefs. As a complex adaptive system, it seeks to equalize the diverse workforce but looks to the relationships within the system rather than focusing on individuals. McDaniel and Jordan (2009) pointed out:

> Because healthcare organizations are such information-dependent systems, then the significant asymmetry in healthcare organizations between care clinicians, patients, and managers greatly shapes relationships. In most healthcare settings, the information power of the physician is symbolized by the white coat culture. The implementation of electronic medical records is reorganizing information asymmetries and thereby calling into question the monopolistic power of the white coat. (p. 69)

The health information management professional is in the midst of information-dependent systems. One of the first authors who wrote about medical record science was Huffman (1963), who stated of a new professional, "The traits especially to be developed are judgment, intuition, diplomacy, initiative, and ability to adapt. The last is a very necessary characteristic." (p. 41). Today health information managers are immersed in an ever-changing environment where adaption is essential to survival and success is the trait to be adaptive is still essential.

As health information management professionals mingle in the complexity of relationships in healthcare, adaptability to change and to understand the dynamics of

change and unintended consequences are important. Recognizing rather than fighting the uphill battle of change is a key in the adaption of the electronic health record. Also, helping to provide a psychologically safe environment in the midst of uncertainty is essential to workers. During change, there may be uncertainty, fear of the change, and ongoing trust in the leadership, software, and overall change management. Developing teams at all levels of the workforce is critical during this time. McDaniel and Jordan (2009) stated:

> Healthcare managers in the modern context must think about how they can organize their systems to be more able to operate effectively in the presence of uncertainty…. Trust will become a key component, as members of the team understands that nobody "knows" what to do, but as a team, they can discover an effect on course of action. (pp. 71-72)

The complex adaptive system is further challenged by the socio-technical nature of the electronic health record. Informatics research studies on the unintended consequences abound in studying the physician's adaptation to the electronic health record. The socio-technical nature of this change is also referred to as the human interaction with the computer. Harrison, Koppel, and Bar-Lev (2007) noted, "Sociotechnical interactions are dynamic, emergent, hard to understand, and often surprising conditions characterizing complex adaptive systems" (pp. 543-544). Adjustment to the electronic health record as it emerges is a struggle.

Further, Harrison et al. (2007) addressed healthcare research in socio-technical and complex adaptive systems:

> Researchers in this field show how interactions among technology users-including managers, clinicians, and other healthcare staff-help select, reinterpret, modify, and even create technologies…as people adopt and use technologies, they alter them and transform relations among the technologies and their organizational contexts. (p. 543)

Human computer interaction is laden with unintended consequences. We do not always know what will happen when we begin to work with a new electronic system or new software. The unknown changes in the actual work processes contribute to this dilemma. In a literature study to address health policy for medical informaticians, Bloomrosen, Starren, Lorenzi, Ash, Patel, and Shortcliffe (2011) explained the difference between unintended consequences and unanticipated consequences:

> The 'unintended' implies lack of purposeful action or causation, while the 'unanticipated' means an inability to forecast what eventually occurred. Either kind of consequence can be adverse or beneficial. Unanticipated beneficial consequences are actually happy surprises. Unanticipated, unintended adverse consequences capture news headlines and are often what people imagine when they hear the term 'unintended' consequences…the most troubling unintended consequences are those that are undesirable as well as unanticipated, with no mitigation plan in place. (p. 83)

The implementation of the electronic health record is growing. The overall healthcare organization system administrators must look at their responsibilities to "prepare managers and users to anticipate, prevent, mitigate, or overcome negative

consequences if they occur in the course of the implementation" (Bloomrosen et al., 201, p. 88). The use of human resource development tools and practices are important to incorporate into system plans to make a successful transformation.

The health information research literature is silent on the unintended consequences that health information managers who have longevity in the profession have experience as they move from a paper-based medical record to an electronic health record. It has not focused on the individual during this critical change in healthcare. This research is needed to provide literature that can contribute to the informatics field and to the education of future health information managers.

Summary

This chapter was a preliminary review of the research and information to which I was exposed prior to beginning this research on the experiences of health information managers during this critical time of change in healthcare. The implementation of the electronic health record for all acute care and ambulatory care organizations prior to 2014 has been massive and staggering. Human resource development tools are needed to help managers and departments through any crisis. Literature will be examined in greater depth after the findings are presented and the experiences of the participants provide reflection and themes.

CHAPTER 3

METHODS AND METHOLOGY

The primary purpose of this research was to gain a better understanding of the lived experiences of health information managers. Specifically, the study included those with 20+ years of experiences who have managed the process of change from a paper-based medical record to an electronic health record. In doing this, a deeper understanding of the unintended consequences that occurred during the process was gained. With this information, I am able to provide educators of health information management professionals with knowledge to prepare better entry level graduates for the workforce. Additionally, the findings provide new knowledge to the historical story of the experiences and roles of the health information manager and the major change from a paper-based medical record to an electronic health record. The results of this study impact human resource personnel who engage in organizational changes related to the electronic health record.

Hermeneutics and Phenomenology

This is a hermeneutic and phenomenological research study. This section provides background information on this approach.

Phenomenology is a philosophy that embraces the interpretation of the complexity of being in the world (Holloway & Wheeler, 2010). Phenomenology philosophers have emphasized the interpretive nature of *Lebenswelt* or lifeworld to provide *Verstehen* or understanding (Dahlberg, Drew, & Nystrom, 2000; Gibson & Hanes, 2003).

Besides being descriptive and qualitative, phenomenology's "focus is on the subjects experienced meaning instead of on description of their actions or behaviors" (Polkinghorne, 1989, p. 45). Furthermore, natural language through unstructured interviews is key to the process. Polkinghorne (1989) stated, "Instead of studying the body as an organic object, it studies the experiences people have of their bodies." (p. 45) Dahlberg, Drew, and Nystrom (2001) and Polkinghorne (1989) emphasized that it is the knowledge of being in the world through the organic nature as body and soul that encompasses this holistic nature. An important aspect of this philosophy is culture, and tradition is as part of being in the world as we know it. Heidegger claimed that we learn that we live within a particular tradition, and through Gadamer we learn that we exist through that tradition (Dahlberg, Drew, & Nystrom, 2001).

Schwandt (2000) said of Dilthy's early life world philosophy,

> to understand the meaning of human action requires grasping the subjective consciousness or intent of the actor from the inside…Verstehen…is an act of psychological reenactment getting inside the head of an actor to understand what he or she is up to in terms of motives, desires, thoughts, and so on. (p. 192)

Important aspects of this philosophy is to have a deep understanding of the lived experience, using systems theory, as well as inter-subjective and holistic (Dahlberg, Drew, & Nystrom, 2001). This philosophy provided an approach that served the participants of this study well. This dissertation used hermeneutics to find themes among eight health information management practitioners with 20+ years of experiences.

Ericson (2006) claimed that careful attention to human resource development during dramatic and often traumatic changes is important. The healthcare environment is going through an upheaval as the implementation of the current electronic health record systems happen in a short period of time. We need to acknowledge human emotion in the lived experience of those involved in this change. While there is a need for rationality in planned human resource development activities, e.g., training for new software for the electronic health record, there is also a need for healthcare studies to have historical lived experiences to demonstrate that emotions play havoc on rational planned events. Earlier, I presented the research on unintended consequences when physicians engaged in learning new software. The deeply embedded historical experiences of many doctors who had used paper-based medical records for decades made the change to an electronic system emotionally difficult. Ericson (2006) stated:

> Hermeneutic experience is entwined with the HRD practice to the extent that experience is that which the individual already is and that which the individual communicates as new experience and insight. (p. 225)

Further:

> This also implies incorporating a social-interactive, communicative dimension that recognizes humans as social and historical beings rather than merely resources. (p. 227)

A hermeneutics researcher needs to be a part of the circle of those researched. As a health information professional fully aware of the healthcare changes in the last four decades, I feel confident that this was an appropriate methodology to use. Hermeneutics

requires a pre-understanding and interpretation. Dahlberg et al. (2001) suggested that the neutrality of a researcher is unachievable and even undesirable. They noted, "But, as human science researchers, we want to adopt an attitude that the world, in its complexity, can show itself to us" (p. 94).

Dahlberg et al. (2001) stated the following necessary qualities that make for the unique openness of the researcher:

- State of mind in which one in a self-aware way, is sensitive to the other's experience
- Willingness to increase one's capacity for empathetic response to others
- Capacity to be surprised and sensitive to the unpredictable
- Seeking to discover and understand the others person. (p. 22)

As the research in the field of health information is primarily positivistic, it is important to find a closely affiliated field that may have more qualitative research to study in order to expand the research in the field. The field of medical/health informatics and the field of information science/technology both offered research that utilized qualitative approaches. The evolving use of the electronic health record and the issues related to human-computer interaction (socio-technical) with the implementation of the electronic health record resonates with the use of hermeneutics.

In an Australian study, Webb and Pollard, (2006) information science researchers found:

> Hermeneutics is one tool that will allow qualitative IS [information science] researchers to transcend the usual everyday descriptive character of qualitative

> understanding, other energy phenomenon to identify paradoxes and contradictions, challenge assumptions and plumb the depths of inquiry to develop strong, dependable explanatory foundations for subsequent quantitative inquiries. (p. 44)

Medical informatics researchers have studied the everyday emerging challenges of clinicians with electronic health records (Bloomrosen et al., 2011; Harrison, Koppel & Bar-Lev, 2007; Hersh & Wright, 2008; Sittig, Krall, Kaalaas -Sittig & Ash, 2005). These challenges are similar to basic information science research and also demand a unique approach to research.

The rapidity and complexity of change due to electronic interchange whether it be in general information science (e.g. study of the human interaction with internet) or the interchange of health care information calls to the qualitative method of hermeneutics. This helps us to understand the experiences in the life world of workers who are a part of the change to an electronic health record from a paper-based record. The non-clinician worker's viewpoints are important to the body of knowledge about the health information professional's emerging role in many health care environments

The qualitative method of hermeneutics helped us to understand the experiences of the health information manager and also informed the human resource development research about an area of health care that has not been explored. Finally, as noted in Gibson and Hanes (2003):

> Because an emphasis of HRD is on change in organizations, the complexity of this construct compels one to consider a research approach that has complexity as

> one of the foundational attributes. Similarly, phenomenological research with its emphasis on holism is not constrained by limitations of traditional methods that tend to ignore the complex, evolutionary, and system attributes of organizational context. (p. 18)

Collecting the Data

This section includes discussion of the Institutional Review Board approval. Included in this discussion are following: Consent of participants and the importance of privacy, confidentiality, and anonymity; the process for interviewing participants; and the process for transcribing the interviews.

Institutional Review Board

The University of Minnesota's Institutional Review Board's approval was sought and followed throughout this study. Furthermore, the privacy, confidentiality, and anonymity of the interviewees were of utmost concern. Sieber (1992) defined these as follows:

> Privacy refers to persons and to their interest in controlling the access of others to themselves. Confidentiality…refers to the data…and to how data are to be handled in keeping with subjects' interest in controlling the access of others to information about themselves…. Anonymity means that the names and other unique identifiers (e.g., social security number, address) of subjects are never attached to the data or even known to the researcher. (pp. 44-45)

The health information management professionals are bound by law and by a professional code of ethics to maintain the highest level of privacy and confidentiality of

personal data. Obviously, in this context, confidentiality referred only to personal information of others that the managers might have had, as the information shared was agreed to by the participants to be shared in this dissertation. The consent form that all participants signed is shown in Appendix A. The IRB approval letter is in Appendix B. In all cases, the interviewees signed this consent form; that informed them that the interview would be audio-taped; the tape transcribed by a professional outside party who was obligated to maintain privacy, confidentiality, and anonymity; and security measures for electronic information. They were also informed that they would have an opportunity to review and correct any information from the transcription prior to its use for data analysis.

Process of Interviewing Participants

I was the only interviewer for the collection and analysis of the data. The interviews were conducted in person and were digitally audio-taped with participants' approval. Eight health information managers who met the criteria for the study were asked to participate in the interviews. There was a serious attempt to locate a diverse population. Health information managers who had worked or consulted in acute care, home care, and ambulatory care were interviewed. Some of the participants had national and international experiences. As the profession is predominantly female, a serious attempt was made to interview at least one male, which was accomplished.

Immediately before the interview began the purpose of hermeneutic phenomenology for this study was explained. Some of the participants had signed the consent form ahead of time, some at the time of the interview. So, I reiterated what the

consent form said. They were informed that, during the analysis process, my role would be to assess emerging themes, but they would be asked to reflect on the themes, and a final set of themes would emerge from the group analysis. They were told that the results of the study may be published and would be available through digital dissertation sites. Finally, they were assured that all audio-tapes would be destroyed upon completion of the dissertation.

During the interview, the primary research question was asked. As needed, prompting questions were used. Initially, I thought that field notes would be necessary, but once the primary question was asked, most of the participants spoke freely and without any prompts at all. Because the interviews were audio-taped, my attention to the participants was 100%. I wanted the interviewee to feel comfortable so a setting of their choosing was used for the interview. Three participants chose meeting in their homes, one at a coffee shop, and the remainder at their office. Table 1 provides an overview of the participants, the type healthcare organization they currently work in or whether they are a consultant, and what credential they hold.

Table 1

Participants, Current Healthcare Organization/Consultant and Credential

Participant 1	International Vendor	RHIT
Participant 2	Acute Care	RHIA
Participant 3	Consultant	RHIA
Participant 4	Acute Care	RHIA
Participant 5	Acute Care	RHIA
Participant 6	Acute Care	RHIA
Participant 7	Consultant	RHIA
Participant 8	Acute Care	RHIA

Process for Transcribing Interviews

The audio-taped interviews were transcribed using a professional transcriptionist service that provided evidence of privacy, confidentiality, and anonymity of the interviewees during the process of transcribing and storing the information. This included storing information in encrypted files during transfer of the completed transcripts and processing of information in private areas (Sieber, 1992). Any storage of the interviews was encrypted, including USB devices, laptops, or desktops. Electronic exchange of the transcripts was sent through the Internet using encrypted measures. Interviewees were sent the transcripts of the recordings to verify all information. One participant made minor changes to her transcript.

Data Analysis

Initially, each transcript was read and any questions of words, acronyms, and so on were clarified by listening to the audio-tapes. Each participant's individual transcript was sent via encrypted email to the participant. They were asked to review for any further clarification, for instance, to clarify any acronyms that were used. One participant made minor clarifications. All other participants accepted the transcripts as documented.

Coding was done by hand not using any electronic software. Each transcript was read at least two more times to gain a deeper understanding of the meaning of the experiences of the individual participants. This provided immersion into the experience. Colaizzi, in Polkinghorne (1989) stated his steps of "being immersed by reading something to the point of modifying one's existence." (p. 53) The reading of the transcripts multiple times allowed me to be immersed in the participants experience, and to further bracket my own. Detailed notes were made on the documents, extracting key phrases or sentences pertaining to the experience. On additional readings, I began to cluster the phrases and sentences to reduce into themes using the participants and my own transformation of the phrases and notations using the example of Colaizzi in Polkinghorne (1989). Common themes emerged. Another reading of the transcripts was done to be assured that all details and themes were accounted for. Four themes emerged.

As Colaizzi suggested, after the common themes were identified, the participants were sent via email the four themes and given an opportunity to reflect and voice any disagreement or add any aspects of their experiences that were missed (Polkinghorne, 1989). The participants agreed to the themes as inclusive of their experiences. Through

this iterative process, the depth of the analysis provided assurance that the themes were as meaningful and complete as possible

Summary

The research of the experiences of the health information managers included individual interviews of eight participants meeting the criteria. The primary research question was: “What experiences have you had during your 20 plus years as a credentialed health information management practitioner?"

The health information managers had 20+ years of experiences that spanned the decades of the paper-based medical record and the emerging electronic health record. The health information managers had experiences in the implementation of an electronic health record system. Identification of the major changes in health care that were experienced was documented through audio-taping and later transcription. Themes were extracted from the data and verified by participants.

CHAPTER 4

THEME 1: COMMITMENT TO DATA QUALITY

This chapter discusses the experiences that the participants shared about the importance of the quality of the data that is collected in the medical record. Whether the medical record is paper-based or electronic, all data are important. When the participants spoke about data, they were referring to the many individual documents that make a medical record.

Participants' Early Experiences with Paper-based Medical Records

All of the participants began their careers using paper-based medical records. The challenges of paper-based medical records were universally discussed and often spoken about humorously. Several spoke of the stacks of individual pieces of paper that needed to be filed into individual records. One person described the challenging scene:

> Knowing some of the patients and how sick they were, and that you have information that should be in the records, and it's stacked--and, I mean, there would be 20 stacks of paper that are maybe, you know, a foot or more in depth.... I think that was a little nerve-wracking thinking about just moving all that paper. (P#2)

Another participant confirmed by their own experience:

> You took that piece of paper, and you sorted all the pieces of paper, and then you took them back into the stacks, and you pulled each chart, and you fastened that piece of paper--the lab report, the radiology report, whatever…. If the record

> wasn't there, then you got yourself a note guide, and you put it in there…but it was so manual…process, but it worked. (P#8)

Transcribed reports were pivotal to the emergence of the electronic health record. All of the participants discussed the transition to the transcribed documents. As one participant reminisced:

> Back then (1976), they were typing on Selectric (electric typewriters), and they had to have carbon copies, etc., and correct all of those. I had a blind transcriptionist, and I had to make sure I was accommodating her needs when we transitioned into something that wasn't a manual or Selectric type…typing methodology, where, if she knew she made a mistake, she could go back and correct it…. I was the second hospital in the United States to install word processors. (P#3)

Experiences of How the Electronic Health Record Changed Departments

With the electronic record, though, there is no need to file individual documents and, therefore, there will be no file rooms, and the roles of a file clerk and the transcriptionist change. Software, called voice recognition, is rapidly replacing/changing the transcriptionist function. As the computer recognizes a physician voice, accent, and tone, the software can interpret the dictation, and a transcribed report can be generated. Additionally, physicians are word processing their own reports and often using templates to capture universally identified data elements. As one participant explained:

> It will just…it will just plain—plain go away. It's just –it just won't be the same, and it impacts morale. You know, it's really hard on people, and then it also—it

> impacts the managers as far as providing coverage…and the fewer people you have, you know, the more it impacts them as well, too. So it is like a double whammy. It's losing—you know, it's losing their peers, and then, also, their work schedule is changing. (P#8)

One participant had looked at the history of health information and one of the first medical record librarians, Grace Witting-Myers. The participant commented:

> Things haven't really changed that much even though it's been 100 years. Her words still resonate today…. You know we've been doing this for a long, long time and I've often said to anybody that will listen, and to vendors- how did you build an electronic record without involving the people that have managed the information for the past 100 years? Do you find that kind of intriguing? And until they do we're going to be spinning, always spinning. (P#5)

Importance of Accuracy of Data

Each participant discussed the importance of the accuracy of the data within the paper-based medical record. It was customary to audit transcribed reports for accuracy, for instance. The adage, if it wasn't documented, it wasn't done, was the message that was given to physicians. Well-written documentation, in the past and today, promotes quality patient care.

One participant experienced statewide discussions with a colleague about the importance of the medical record and how the data in it could be transformed into quality information. She said:

> And so I met their point person for medical records. At that point and jointly, the two of us started going around the state talking about the merits of having a medical record and how to collect data, why data are important, how data could be transformed into useable information to measure both process and outcome, and what the quality assurance program was all about...so, as rudimentary as it was, we developed sort of a quasi, if you will, electronic record by buying into a dictation system, and we actually developed templates that we could store in the system, and then the nurses would dictate...it was rudimentary, but we managed to process that information. (P#1)

In the paper-based medical record, as well as in the electronic health record, the health information management department has been responsible for analyzing the documentation in the medical record for data quality. One participant said:

> I look back; health information management was involved with data. We were involved with privacy. We were involved in documentation quality. Maybe not to the degree we are today because, now, we get more involved in clinical documentation improvement (CDI) which is a very good fit for health information management. (P#6)

As discussed by all of the participants, the following participant voiced:

> So we're the source of all this data, actually ALL of the data. Not just some of it, all of the data about healthcare is from HIM…it drives licensing, it drives funding. It drives all of these different issues that keep…healthcare alive, and it still comes down to –what patient is in what bed-and the importance of how that

> data is used; really critical and a reason that HIM is still a vibrant profession, I think (P#2)

One of the participants was active with the U.S. Hospital Utilization Project (HUP) in the late 1970s. This project focused on merging clinical data with financial data. The data were all submitted via paper abstracts and then input into computer systems, and reports were made available from those systems.

> And we would run a lot of reports, also do data quality on these…data quality related to coding and documentation…I started to consult with physicians in education, all the other clinical administrative and finance. (P#7)

HUP was a pre-cursor to the use of data from the medical record to estimate the cost of treating a particular diagnosis and using that estimate to develop diagnostic related groups (DRG's) that would be the basis for the reimbursement system that is used up to today for those insured through Medicare and Medicaid.

Driven by the Diagnosis

The diagnosis, accessed from the data in the medical record, has driven the health information management department processes and continues to drive the implementation of the electronic health record. Documentation in the medical record, whether paper-based or electronic, is analyzed, audited, reported to insurers, public health agencies, and the like. The re-use of what is now labeled big data or extremely large data banks/databases to make decisions about the business of healthcare reminds health information managers that their role in maintaining the medical record is essential. One participant described where her skills are needed for this evaluation of the data:

> I was actually asked to take on our business intelligence for our department…the analytics pieces because what they [administrators] said to me was, "You are the person who can bring the financial, clinical, and administrative. That's what you're trained to do so this is really a beautiful fit." And not that I haven't been working my projects on the clinical side and the financial side, but this is really kind of a new and exciting opportunity for me. So, when you think about the accountability organizations have in reporting quality measures to places like Medicare and Medicaid or Joint Commission or in Home Care ORYX, and all of those hiatus on the ambulatory care side, this is where it gets really exciting because now we can see the outcome of all of these efforts. (P#1)

In order for the big data to be analyzed, it must be accurately coded. In the U.S., we use a modified version of the *International Classification of Disease*, 9th Edition, Clinically Modified, for diagnoses and procedure coding for research and reimbursement. In addition, we use the *Current Procedural Terminology*, 4th Edition, procedure coding for reimbursement for physician service fees.

All of the coding is based on the documentation that is available in the medical record. A medical coding specialist analyzes the medical record, including all of the written notes and the reports (e.g., laboratory, pathology, X-ray), to code the principal reason the patient was treated. One participant concluded:

> And in the last ten years, I've seen more and more of a shift in health information management on the coding side, reimbursement side, use of the data for so many different purposes, and your coding staff are integral because they understand the

> codes. They understand documentation. We need to be at the table for these discussions, and other people are realizing the value, you know, well, we need to pull in health information management. We need to pull in coding. In the old world, that would not probably—wouldn't have happened. (P#6)

As another participant indicated that 'correct codes translate into correct payment.' She continued to explain the significance of data quality in the coding process:

> Coding turnaround times, coder knowledge and education, and coding quality monitoring programs, CDI [clinical documentation improvement], all result in a high level of coding or appropriate level of coding, as we like to say. (P#4)

Encoding systems are computerized systems that are used as tools to help a medical coding specialist to code more accurately. One of the participants worked for the primary encoder vendor used in the late 1970s. She learned how to install and train others on the system. She described her experience with traveling to large system installations:

> So I would get on an airplane and fly somewhere with rolls of [computer] tape on my arm so that I wouldn't lose that hospital's tapes because we would structure them to meet that hospital's specific setups for their departments and sub-departments and that type of thing. And once I had installed…I would go back...and actually train folks on how to use the product, how to bring it up, how to put their user information, and then work with those who were going to create

> reports from the abstracted information…. So I kind of wore several hats while I was there, but it was fun. (P#1)

Another participant spoke to the development of the coding function in a current setting with an electronic health record system. That experience was with a major hospital system in the Twin Cities, Minnesota area, using one of the larger software companies installing electronic health record systems. This participant found that being technical advisor to the Information Technology (IT) staff was one of the best projects worked.

> How do you translate having this body of knowledge in health information management to an electronic environment to make sure that it works? And it is so intricate and so detailed and the translation of your system design to the interpretation of the I.T. people who actually build this thing is sometimes night and day. (P#7)

Summary

The electronic environment in healthcare in today's environment focuses on the quality of the data that are coded and maintained for use in research and reimbursement. The role of the health information manager is important to this process and is evidenced by the experiences of these participants. As the electronic health record software becomes more sophisticated, the role of the medical coding specialist will undoubtedly change, just as the role of the transcriptionist changed. These health information managers were clear on the responsibility they share to move the profession forward with the expansion of the electronic health record systems.

CHAPTER 5

THEME 2: MANAGING A WORKFORCE IN THE ELECTRONIC HEALTH RECORD ENVIRONMENT

Managing human resources in a health information management department in a paper-based medical records setting is different in some ways from that of electronic health records. The paper-based system meant that all employees worked in an office setting often in cramped quarters, often in the basement where records were stored.

Paper-based Medical Records Department Setting

In a non-technical paper-based world, it was typical to be cross-trained. Several participants pointed out a similar experience. Some participants found the change difficult. As one participant discussed:

> You know one of the big changes that I see, that is really a really huge frustration to me, is when I first started working in this field, I could do any job in my department…. Today, I don't know that I could do anybody else's job...but there's a piece of me that gets mad at me that I can't do it myself. (P#8)

Another participant continued:

> And I sort of miss that...I can't say that my time was completely booked up so then I would go over into Transcription and actually sit there and try to transcribe, so I could understand how they felt about this [doing transcription]. (P#3)

All of the participants acknowledged that, when they could not do all of the manual job processes by themselves, they needed, as managers, to provide guidance to workers:

> One of the approaches that I took which I felt very good about is recognizing that one person can't know it all, but, as the manager or the director of that department, you can at least provide tools and resources to get the job done. (P#1)

Clerical staff often did the paper-based medical record functions. All of the participants reflected on various aspects of this and how the importance of technical expertise is now needed.

> When I look back at health information management, back when our focus was very clerical, very clerical in terms of our clerical staff doing things, and it wasn't coding focused. It wasn't reimbursement focused back then; very much on the processes for chart tracking and deficiency management, release of information…coding was done for research purposes and some data gathering, but it certainly didn't have the impact that it has today, totally different world. (P#6)

Another participant with 37 years of experience remarked about her experience in managing her staff in a paper-based system, and now with the electronic record, the emphasis has been on access to the record, the communication tool for patient care.

> You know, some of the things I've learned through that [paper-based] is just organization. You know, try…finding ways to divide up the work so that it's more manageable and you can get it into the medical record faster. (P#2)

All of the participants have worked in the hospital setting. One participant, though, started out in ambulatory care. At first, she worked with only paper information. One of the paper-based tools that most of the participants discussed involved abstracting

data from the medical record for research. This participant was involved in that work for a national study on women and children. She noted,

> I was invited to participate on that by helping to organize the process of collecting the information and putting the information into the right file structure…. And that sort of thing got me very interested in the process of collecting and studying information because we also did our own analysis from that information. (P#1)

Home Health was another type of healthcare setting that needed medical records. They started out with a rudimentary paper-based record. One participant who worked in that area commented,

> Records were kept on cardex, four by six cards that kind of came down on one of these little pull-out slots, and they were sort of organized by patient, but they were also organized by nurses for those going out to the home. So I went on a few home visits to try and understand what they do, how they do it, and how they gather their information. And from there, I decided if they actually needed the medical record. They needed a way to share records. (P#1)

Management of Human Resources

Managing the paper and the workflow of the medical record changed from paper-based to electronic. However, the management of the human resources in a department appears to be timeless and not totally dependent on the type of record system that is managed. All participants had similar experiences as summed up by this statement.

> Management certainly is the same, you know, throughout the years because that doesn't change in general. Your tools change, but the basic concepts drive a lot

of what we end up doing. But the core stays the same with management…. When you look at so much of what you do, you're managing people, and that's consistent, but a lot of what you do is project management. You've got new things you're working through, new things that need to be done, new technology to implement, and a lot that really…. You just get a different environment or a different technology to help you meet some of your similar goals. We can just do more today. (P#6)

She continued:

In my mind, the basic concepts don't change. You know, again, maybe some tools you can use just to monitor productivity or whatever…. People always want to be respected. They want to be included. They want good communication skills, you know, from your people. If you do some of those basics with management, they want to know what to expect. They want their goals. The stuff is always--people don't change that much when it comes to that kind of thing…. Boy, the basics are there. They don't change. (P#6)

New Skill Sets Needed

The change to a technological environment, however, has brought change to the health information management department human resources. All of the participants discussed the need for new skill sets for the staff and for themselves.

The skill level of our employees has changed dramatically. I mean, people have to come with some technical understanding and knowledge…. We have encouraged people over the years to go back and broaden their education. It's been hard. I

> mean, my managers, and I have been really in tears over--you know, over the last few years, agonizing over having to let people go because they can't…at some point, you just can't justify keeping these people in these positions, and it--it hurts. It hurts them. It hurts us. It hurts everybody. It impacts morale, and it takes a long time to recover from that. (P#8)

Another participant reflected about the quantity of clerical versus technical staff:

> I used to have, ten years ago, I think, about 120 employees here, and I would say 75% were clerical, and 25% were coding/coders. Today, it's 50-50, so I have 50% coders…. It's kind of a documentation improvement, data analysis, that kind of thing, cancer registry, more of that than we used to have. So it's--you're seeing a flip totally, and where the focus is, in terms of health information management, at least today, all important, needed. (P#6)

One participant described her experience in managing a plan for a major layoff. She was disillusioned by the company employing her:

> I absolutely hated the job. And I have to admit, I hated it because I can't stand to see wasted money…. I was unhappy, and this is when the major recession hit. I ended up having to develop the program to lay off over 2,000 people. And, of course, I'm working with people that I know are gonna be laid off next week…. And I was thrilled to be gone. (P#3)

The common path to education for clerical staff who work in the health information management department is to attend colleges that offer medical coding, or two year or four year health information management programs. After completing these

programs, graduates can sit for certification exams that show their knowledge. Although all participants referenced the need for technically prepared health information management staff, one in particular spent much of her interview discussing her encouragement of her clerical staff to get further education.

> Getting people educated and sit for test…. So we can revolutionize the healthcare industry. It isn't just about the technology. And I feel so passionate about trained and credentialed health information management people, I often over extend myself trying to split myself between being a leader of a department and also trying to grow more people, too, because there just aren't enough of us…. My personal goal…is to see health information management in every department within the hospital. We need people who have a two-year, at least a two-year RHIT degree who can think outside the box, manipulate data, pull reports together. It can't be the supervisor or the manager doing all of these things. (P#5)

One of the health information managers who has been consulting in health information management for many years provided some additional insights into the changes.

> So a lot of the stuff we grew up with and all the detail…a lot of it is disappearing. It's coming to those things that really are very, very different, you know, in terms of those roles [paper-based]. And also looking at all the various new roles out there for health information management professionals, outside of the--our typical course from 31 years ago was to go into a health information management department. That's what we were trained for. And that is not the case anymore….

> But, it also is about level of care. It's just not about inpatient. It's a lot about outpatient. They need a lot of good people in the outpatient arena, and just not taking care of health information management but the whole business office management process. And expertise with systems and promoting care. You know, there are insurance companies--there are so many different people who can use your expertise outside of the hospitals. (P#7)

One participant commented on the need for policy development based on the technology changes and the skill of the health information management professional. She said:

> I just think that there is incredible need for policy development. I think that when you think about privacy and security and managing information and working with our technology experts to understand it goes in here, what happens to it, how do we reduce the risk of breaches, and how do we give that assurance to the individual [patient]. (P#1)

The experience of managing in this new age of the electronic health record with rapid change is not without stress. As noted earlier, layoffs are stressful; getting staff re-educated is difficult, but necessary. Working with other departments can also be difficult. As one manager advised:

> So change management, it is tough… You gotta take care of yourself. [during technology implementation] you gotta get away from this because it can be an 18-20 hour process. And you gotta put up--for that type of process--with many battles. (P#7)

Lack of Recognition of Skills by Other Departments

When the electronic health record systems were built in today's marketplace, an underlying frustration that was experienced by participants was that those who use the data for non-clinical use were not always listened to or even asked for advice. The experiences of participants concurred as stated in the voice of one participant:

> We're sometimes just perceived as not part of the team but as part of the afterwards or aftermath…. I can introduce you to a few others who feel as I do. It's very frustrating, you know…but I think once again, everything with the electronic record is seen first as an IT project, an IT endeavor, and that, you know, thou shall do as IT says kinda thing…. And so much of the record and the record activity is when the patient is not there. It's after discharge. You know, it's follow-up appointments. It's release of information, scanning, code…it's not a billing record. It's a patient care record and…but the record is for research. It's used for many things after that. (P#7)

All of the participants had similar experiences, as summarized by this person on the development and implementation of the largest change from a paper-based medical record to an electronic health record. She poignantly reflected on not feeling good about the building of the electronic health record system.

> Not good at all…. And still, I--you know, I'm still recovering from some of those feelings...and I certainly can't speak for all the vendors, but for our particular vendor, they really did not involve, hardly, if any, health information management professionals in the development of their record, nor did they for implementation

> at our organization…. I mean, we were involved, but we, you know, we--the people who have to support us didn't understand us, and because we weren't involved in any of the training or whatever to speak of, there were just a lot of disconnects there. It was—it was very, very hard getting going. Very, very hard. And it's taken a long while to recover from--we're in a much better place. A much better place. (P#8)

All participants discussed the need for technically educated personnel and the reduction of the clerical staff.

> Almost everybody is credentialed...in our department now; compared to 37 years ago. Almost everybody is credentialed or on their way to being credentialed. Very serious, that pursuit. (P#2)

All of the participants discussed the ongoing development of managing more remote employees. Once transcription systems became more electronic, it was common to move workers into their home offices. This type of remote work began twenty plus years ago but is the norm in today's environment. Over time, this remote work has been made available to other workers.

One participant discussed the argument for home-based transcription with her Chief Executive Officer many years ago. A strong department manager and an early adaptor of using data for decision making, she said:

> You know, set up the software, and let them dial in…. Come on! We don't have the space on site. Um, they're happier. I didn't have turnover when I turned that around…. And that was way back. I left in 1993. So that was way back…. And

> you know what? You learned about establishing roles and privacy, you know, separate rooms and proper equipment and ergonomics. (P#3)

Monitoring productivity and quality of work by a transcription manager paved the path for medical coders to work in their home offices. Electronically based systems allow for remote access to the clinical information needed to code the medical record. Access to the business software is also more streamlined.

Summary

The experiences of the participants in managing human resources during the change from a paper-based medical record to the more technology-based systems were laced with grief and excitement for the profession. Some grieved their personal loss of how technology changed their roles in the health information management department; how they no longer had the skill and knowledge control of each job in the department. All participants acknowledged the growth of job roles for educated health information personnel. All participants were enthusiastic about the change in technological advances and the electronic health record despite the issues related to changes in human resource needs. They recognized that the core of managing human resources has not changed even though the level of expertise has.

CHAPTER 6

THEME 3: GENDER AND SEXUAL ORIENTATION BIAS EXPERIENCES

The participants spoke frankly about their experiences with bias related to the female gender and towards gay males. Seven of the eight participants were women. Salary issues were discussed by six of them. In addition one person discussed ethical issues related to sexual orientation and gender bias experience in one workplace and the effect on employment.

Gender Bias Related to Salary

One of the participants' experiences as a leader in the profession, at both the state and national level and her reflections on women leadership provided a starting framework for this chapter:

> And, [I] went through our state associations and at the national level, I think there's been strong leadership all along. And I don't think that we've always recognized that as women. (P#2)

The professional field of health information management is predominantly female. As one participant said:

> I think we're underpaid for the work that we do…. I think that we, as a profession of women, are truly underpaid. And you know, the latest Obama results, you know, state that women as a whole are 77 cents to the dollar for the male. And I have a feeling that if they looked at Health Information Managers it would be a great disparity than 77 cents and a dollar. It think it's wider, and, you know, we're all now talking about it…maybe not be compensated with the same amount

> as a bedside nurse. But really, when we compare education, it's the same education…from a coursework perspective, it's extremely similar. It's like we all have the same basic science coursework, and then when nurses go off to learn to do bedside care, we go off to learn our coding and some of our management courses…so, yeah, nurses are in charge of the patient's life, but we're also in charge of the revenue stream, and it goes back to the no margin, no mission [no revenue stream, not helping mission of organization]. You can't provide patient care unless you've got, you know, you're maximizing all the dollars that should shout get for the care that has been provided. (P#2)

Another participant experienced some change in compensation, but it took many years to be recognized for her work.

> Now, there's one part of my career that I've not always been satisfied with and that is compensation. I don't think whenever we've had compensation discussions at [hospital], I've always had to go into battle for that because comparison information is not good, and that concerns me. It almost alarms me and what really frustrates me is now that, health IT is taking the lead in a lot of activities that we should have been involved in, we should have taken the lead ten years ago. Now the salaries for, and I have to say this and I know it sounds sexist of me, but it's true; now that males are dominating some of these career choices, compensation is rapidly increasing, by leaps and bounds. And I feel that, over the course of time, especially the last ten years, I feel I've been compensated fairly, not overly generously but fairly, but the first 20 plus years, I don't think I was

> compensated adequately for the work I was performing, and I think that's true of all of my peers. (P#4)

Although most of the participants reflected on their own personal experiences with salary issues, one participant discussed her thoughts about compensation and equity for her workers.

> So, looking at a salary, it seemed to me a person who had worked long and hard and has a degree should be making the same salary that I was making as a manager, as a new manager. And I can remember bringing that up to my boss, and she was just incredulous. She couldn't—"well we can't. We just can't. You know we can't have a staff making more than management." And I said, "Well, why not?.... It's good for the department. It's good for the project." (P#5)

Maternity leave, husband seeking, and cultural issues were discussed as well by a few participants.

> I think that is the other thing is a change in women. Some people work, for example, worked until they had babies, and then they quit or went part-time. And nowadays, people are committed to having a full-time career…. We also have seen a shift with most of the employees being single moms…for one reason or another. And have seen a lot of people divorce, in our current department, and they are the breadwinners…. We used to have people who came to Medical Records seeking a husband, you know, the Residents, you know, in teaching hospitals. (P#2)

Maternity leave affected many in this profession of mostly women. One participant discussed her own experience with maternity leave.

> 1983 was a major change in the health information management department, and basically when DRGs [Diagnostic Related Groups-used for calculating reimbursement] came through; I had just delivered a baby and was yanked off of maternity leave within a week, to do a visit at Princeton University…. I went back on maternity leave, and that was in February, and by October we were up and running. (P#3)

One participant reflected on the role of the health information manager in general, and then specifically, about the role of being a women in the culture of the health care industry.

> Over the years various health information management department responsibilities--e.g., quality assurance management was moved to other health-care workers, such as nursing staff. Currently, health information managers need to step up to the challenge posed by the electronic health record and the predominance of men in the IT industry who similar roles to the health information management professional.

This participant, who often tried to break the glass ceiling, reflected:

> And so the way I looked at it, nobody has really stepped up in their role as health information management professionals to really take on this stuff. That's the major crux. There are a lot of people who shouldn't be stepping up. But some of the dynamic leaders, and there are plenty of them, they should be stepping up….

> And that broke my heart…maybe it's the culture…don't make waves. Don't do something you're not invited to…. Um, here's your place, little girl...because I do see men being treated much differently in our profession and salary is the biggest thing…. [I'm] very privy to some of the salaries and why; they [the men] think they can make more-they do make more than we do. (P#3)

She continued:

> Another student of mine who was a real pistol, you know, wanted somebody to transcribe his minutes. He went on to be a CIO at a much larger hospital. Again, he stepped up. They proved themselves, but they were allowed to do it. I don't see that happening for a lot of females in our profession. (P#3)

Education of the four-year bachelor program was reflected upon and one participant stated,

> Now, so many of their four-year graduates are graduating with a minor in IT, and they are just like these gems…and their bucket of knowledge, and they speak both languages, and for the most part—the other great thing is, for the most part, they love health information management. And they know they can make more money in IT. (P#8)

Sexual Orientation and Gender Bias

Sexual orientation may be a civil right protected by law, but workplace reality for one participant was clear; as a gay individual, the work environment became intolerable and precipitated an employment change. This participant worked for a firm that had some ethical challenges around gender, sexual orientation, and religion.

> So it was very disheartening, and then on a personal note, there was prejudice regarding women, about gay people, and certain religious backgrounds--a lot of prejudice. And I'm like, Whoa! And it made me really look at myself in terms of; is this the environment that I need to be in knowing that gay prejudice and so forth, and it did come out in the organization that I was a gay…and things changed for certain people. And I'm like, "Why would things change after all these years, you know?"…. So the culture made a difference for me. (P#7)

The struggles relating to gender and sexual orientation seemed difficult. As noted earlier, you "gotta take care of yourself," and so when the workplace is uncomfortable, one participant stated:

> Also, when you become unhappier, disgruntled like this, you need to make a change. One of my learnings in my life related to this, I would recommend to anyone and any students as you go in; if you are not happy over a period of time, realize it, and to another, you know, make the change, whatever that change is for the better. And make sure that it fits with your ideals and who you are, as well, you know? (P#7)

Summary

In a mostly female profession, the issues of gender dominance as it relates to salaries and the roles in which you are permitted to perform, were experienced by the female participants. The male participant faced other ethical workplace dilemmas. He did not reflect any experienced discrepancy in salary to those of women, though he did experience some discrimination because of his sexual orientation.

All participants spoke about the need for a more technically educated workforce. All of the participants have been stepping up to the plate in the implementation of the electronic health record. However, one participant challenged the other females in the profession to do the same, which could make a difference in gender equity in the health care workforce for health information managers.

Clearly the participants find their work satisfying and rewarding, but not without struggles related to gender and sexual orientation in the workplace. Chapter 8 will investigate research that supports the experiences of the participants in this study. The inequities that they state are clearly documented in reported statistics that span the last twenty years and will inform further discussion for the future of the profession.

CHAPTER 7

THEME 4: COMMITMENT TO COLLABORATION

In this chapter, I will look at collaboration of health information managers with other managers and workers and their volunteerism to the profession. This sentiment rang true for all participants, as summarized by the following:

> To go forward in the future and be able to--because I do think this; I do think there needs to be more influence from health information management and the electronic record. But we can't be more influential if we don't understand it. (P#8)

With Other Professionals

As mentioned previously in chapter 6, in the past, other professionals took over in areas where a health information manager previously had authority. Often, the issue of human resources and clerical tasks with the paper-based medical record interfered with saying yes to every new project. As one participant reflected:

> That's a kind of a constant theme also for us, we aren't resourced, and, I've learned—it's been a hard battle—I have--one of my hard lessons learned is that I think all of us are very accommodating…considerate and helpful professionals and a group of people. But what you really have to learn is that you have to say "Yes, I would love to do it. However, it's going to take X number of FTEs or X number of hours, for us to do this successfully." So, if you really do believe in that, you need—again, this is collaboration—let's work together to demonstrate why we need it and that is what we need to support it, to do it right. (P#2)

Another participant reflected:

> We've kind of been this hidden away profession again that I think physicians understand, to some extent, not fully, but to some extent. But that other people in the organization don't…. And trying to get that out there, the information out to the C suite people, about this is why, especially as we move into I-10[new coding system], the importance of having a good solid coding staff and some of the other things, the other functions that we perform…. Well, I think I's, you know, I mentioned a little bit about working with people. I think that, that was a key learning. Both working with employee staff in HIM, but also learning to collaborate, with other departments. (P#2)

Another participant shared her experience working with clinical teams including pharmacy, therapeutics, administrators and so on. She said:

> So as the clinical teams looked at the quality and utilization pieces of it [administrative costs] I could bring the HIM experience with how do you get the data, where's the data coming from, if the data valid, what's the integrity of the information we're using. And it was really amazing to me. (P#1)

The participants reflected on their experiences of not being invited to the decision table. In that regard, the health information management department and the skills of the health information manager were invisible to the process. Specific to the implementation issues of the electronic health record, one participant echoed the comments of several others:

> And when I saw---there were four people on that team [electronic health record implementation], when I saw who the other three people were, I knew that none of them had the skill set that my person did. But being able to communicate that to a CIO [Chief Information Officer] who is new from the banking world, sometimes you have to deal with things tactfully but persistently. And I did get her on that core team. (P#5)

Another participant reflected:

> And during that time, the HIM department has always worked close with the IT department but it was-and we have a good-we have a healthy relationship. That's not always the case that I've heard about and I know there's a big separation in the HIM department and IT, and that's not healthy…but I do have to constantly battle for attendance at meetings, the opportunity to make decisions and I'm willing to do that and I will do that, and I don't know if everybody out there is able to do that. (P#4)

The development and ongoing implementation of the electronic health record and related software will necessarily involve the Information Technology (IT) department workforce. But it is difficult to break down the silos that keep IT and health information managers from collaboration. All of the participants recognized that IT is essential but reflected on the struggle to get IT to understand how essential the health information manager's expertise is needed to build a successful system. One participant observed a good relationship when at the Veterans Administration Medical Center:

> Once again, a lot of good collaboration…because we were kind of on the bleeding [healthcare reference] edge of a lot of things…like hemorrhaging. They didn't tell us how to do it…. You guys need to help us figure out how to do it and we didn't know each other's world…it was painful but fun at the same time…they were eager to share their knowledge and help us, you know, and us helping them understand what we needed…good, respectful sharing of each other's expertise (P#8)

Although all participants worked with IT staff during electronic health record and software implementation, the pride of having the knowledge of health information management was clearly experienced by all participants and captured by the following:

> One of the best exercises and projects I ever worked on was developing their whole coding thing and being a technical advisor on all the health information management stuff. And again…how do you translate having this body of knowledge in health information management to an electronic environment to make sure that it works. And it is so intricate and so detailed and the translation of your systems design to the interpretation of the IT people who actually built this thing is sometimes night and day. So there's a lot of up and back and trying to share that technical expertise and their technical knowledge to compromise and make this thing work…. The one thing I learned working with IT is show-stoppers. It's like, no you guys, there HAS to be a way. There HAS to be a way to do this. (P#7)

Another participant reflected on the experience of understanding the health information management processes in relation to the IT staff:

> Talk about project management. Now, the electronic health record--that was huge. But in this case, you have a lot of IT resources that are helping you walk through it because, well, we're actually walking through it together because they're learning this as well as we are, you know a lot of how to do things. (P#6)

One participant reflecting experiences shared by all participants said:

> So I think there's that leadership…when we think about our profession at a larger scale, it's like, why were we able, all of us able to learn this, and other professions aren't…and it's such an important piece. I think we need to start making it into other curriculum in healthcare that you need to take the same coursework. (P#6)

Volunteering within the Profession

This section discusses the experiences of participants with volunteerism. The focus of this discussion is within the Twin City Director's Group and State and National associations.

Seven of the participants have been involved with a Twin Cities health information management department directors group at some time. This informal group is one of professional collaboration and sharing of ideas, frustrations, and current issues. The value of the collaboration with other directors of health information management departments and the freedom with which discussion flowed was evident by those who attended the group. Next are two participants' comments:

> I think it's been well over 30 years; there's been a group in the Twin Cities, where health information management directors have all met, like on a bi-monthly basis- just to share issues and solutions on an informal basis. You know, with peers who really understand what you're talking about, and I remember back years ago, we were in one of those meetings, and somebody said, "You know, have you heard about the Internet; anybody have Internet access yet?" I was the first one! (P#8)

Another participant voiced a comment that echoed most:

> I also found great career satisfaction working with my professional peers in Minnesota. The health information management directors meet regularly…we share work strategies, production expectations, policies and procedures freely. We call each other all the time. Do you have this? Do you have that? And there's constant sharing. There isn't one person who becomes annoying where they want all of the information, and they won't participate in the sharing. Everybody is equal in their sharing, equal in their openness, and while always provide help. (P#4)

Six of the participants have been President of the Minnesota Health Information Management Association; two have sat on the Board of Directors of the American Health Information Management committee, and all have either served as committee chairs or participants within the Minnesota Health Information Management Association or American Health Information Management Association.

It was noted that all participants have been involved with students, most have been involved as leaders with the state associations, and several have served in leadership

positions at the national association. The value placed on relationship building from the time you are a student in health information management and the professional ties within the state of Minnesota and nationwide were evident in comments.

> But a lot of us know each other or know of each other, and it's like a big population, but it's a tightly-knit population…the fact that we have our internships and they're –we still have preserved that the internships are live, in a live environment. You start developing relationships very early on…. It's interesting, you know, I think that's one thing that I've seen. It's interesting after all these years, you're finally comfortable and understanding that, and trying to pass it on to the next generation of health information management professionals…you need to learn patience…. Somebody told me that probably 30 years ago. And it really is true and I see a number of younger people that I'm working with now…very, very frustrated. "Why don't they GET this? Why doesn't IT get that we need to do this?" And, you know teaching them to walk through the arguments and here's how you build your case…the importance of doing it because we all are, all of us in our profession are very, very, very much the same. (P#2)

The experience of the impact of professional association volunteer work was discussed by seven of the participants and summed well by the following statement:

> Being active in the Association for many, many years, it's like, god, the friendships, the professional friendships, working on projects, just like in my regular work, that promote the profession, that promote, I think, expertise or

> helping our other professionals out and how they've helped me out, and how I use them, going back to 'em because I might have a client who does this and it's like, "Hey, you guys are the experts. You've been on this a long time." And they've open arms so not saying that I know all the information but giving people the leads and people being open to that stuff. And I think the great thing is, as I near my end of my professional career, as we know it…and who knows what the future will bring. It's like the relationships and friendships and people, and also feeling very comfortable in terms of seeing that many things in our profession have gotten stronger and a lot of new, young blood. And good learning for me is saying, sometimes it's good to bow out and let new people get in there versus taking a seat at that table, and I really got that. It's one of my major learnings that just have come true a lot. (P#7)

One participant reflected on the overall life experience being a health information management professional:

> It's been a wonderful life experience to know so many hardworking, knowledgeable professionals who share their knowledge, who support each other. It's been a huge part of why I stayed in this profession, is the people I've met and know…the relationships that we've had and the exchanges. I mean, really, the support…. I don't know that you find that in every profession. I guess I don't know what bonds us in this profession, but when we started out years and years ago, we were a sisterhood, uh, no longer…. I mean we are just not sisters. (P#8)

Summary

The participants spoke often and freely about issues of collaboration with other professionals. They expressed the need for collaborations with IT and the need for each area to understand the other. It was clear from their experiences that it took strong personal leadership skills to gain the collaboration needed to be taken seriously by the C-suite and other departments. Although difficult, they were successful; sometimes before and during implementation of new systems; in the end, after the implementation and when problems occurred.

All participants valued the relationships they had built throughout their careers and stated that they had great satisfaction with the health information management profession largely because of those relationships. An informal group of health information management directors have met for 30 years in the Twin Cities to share openly the issues that face them. All of the participants have been active in state and national association volunteer work and place high value on that work.

Clearly, the participants are leaders in the field of Health Information Management. All have mentored students and looked to the students and new credentialed members becoming involved as they did. After many years of the challenges, they are committed to reaching back and bringing others forward.

CHAPTER 8

POST-ANALYSIS LITERATURE REVIEW

The purpose of this chapter is to provide a post-analysis literature review to discuss the themes that emerged from the study of the experience of health information managers. In addition, this chapter provides a review of additional literature to determine if the themes that emerged are supported in the literature. Another objective of this review is to determine if any themes that emerged are not covered in the literature. The overarching themes are Commitment to Data Quality, Managing a Workforce in the EHR Environment, Gender, Sexual Orientation, and Commitment to Collaboration

Theme 1: Commitment to Data Quality

The first theme that emerged was the commitment to data quality. This theme marked the experiences of the health information manager.

Literature that Supports the Theme

Data quality has become a part of the emerging genre known as data/information governance. Reeves and Bowens (2012) defined data governance as "the exercise of authority and control over the management of data assets--including planning and monitoring data, the enforcement of data rules…systems of decision rights and accountability relation to the processing of information" (p. 62). They posed that:

> In the paper world, medical record supervision was the responsibility of health information management professionals. The same should be true in an electronic health record world. (p. 62) This requires health information management professionals to broaden what they already know about other vertical structures

> within the organization. And it requires data governance authority, granted to them from the executive steering group. Health information management professionals know how to ensure data integrity, accuracy, completeness, and privacy of information contained in medical records. (p. 63)

Health information managers, according to their own self reports in this study, are in the best position to be the stewards of the governance of the information collected in healthcare settings. As noted by several participants, we have a long tradition of managing the data that are used for decision support, secondary use of data (through registry systems), and developing clinical documentation improvement systems. Our focus has been on the use of clinical documentation (either paper based or electronic) to improve the quality of healthcare, and to maintain the privacy and confidentiality of the information for individual patients. In the electronic world, data breaches hit the headlines regularly.

Large amounts of medical confidential information that are unintentionally released to the public are reported by mandate to the Office of Civil Rights. Research is emerging that looks at new ways to develop systems to further limit unintended/unauthorized access (Ferreira, Antunes, Chadwick& Correia, 2010).The importance of developing ethically strong data/information governance programs can be influenced by health information managers in leadership positions. In Fenton, Biederman (2014), Fisher noted five points for a governance process to include: identifying the databases or datasets; consolidating, coordinating, and setting standards; applying new processes to entire organization; maintaining monitoring and reporting systems; and

determining when to archive information. According to the study participants, health information managers have the skill and historical experiences to move this agenda forward.

The governance of data/information seeks to provide information as knowledge when needed for all aspects of organizational planning and patient care. The use of information to make decisions, clinical or administrative, follows a similar prescription. According to Osheroff, Teich, Levick, Saldana, Velasasco, and Sittig (2009) Quality data will have correct information, and will be available to be disseminated to those with specific privileges to access the information, and will be available in a format that is usable and timely (Osheroff et al., 2009). The importance of making information available is to support the improvement of patient safety and quality of care. Technology in the form of the electronic health record is edging its way to meeting the demands for access to the information. But the work is not completed, and the role of the health information manager in collaboration with IT and other healthcare team members is essential to the goals.

Orzano, McInerney, Tallia, and Crabtree (2008) discussed the importance of well managed information and knowledge systems in order to better protect the patient from unintended release of their information. Participating health information managers experienced the issues of electronic data exchange on a daily basis in regular functions in the health information department. Their expertise could impact the decisions about research, data governance, and access. Further, Lopez, Holve, Sarkar, and Segal (2012) provided more evidence that the building of infrastructures for research data emphasizes

multi-disciplinary and multi-site collaboration. They pointed out that, based on a review of 132 articles, there are "unique data governance concerns related to the transfer and storage, de-identification, and access of ECD [electronic data exchange]" (p. S41). The participants' experiences as custodians of the health record include their knowledge and skill set in the electronic data exchange issues.

Song and Chermack (2008) weighed in on the concept of knowledge management as a part of a learning organization. Specifically, regarding technology, they stated:

> From the technology standpoint, however, little attention has been directed to the importance of the human interaction and knowledge sharing processes. (p. 434)

Components of Themes Not Found in Literature

There has been no identified research connecting human resource development and health information managers in this area. Yet, there are many new areas in which a human resource development practitioner could help the health information manager. Training and the experiences of data analytics and communication are yet to be researched.

Theme 2: Managing a workforce in the Electronic Health Record Environment

The second theme that emerged from the participants' experiences was managing a workforce in the electronic health record environment.

Literature that Supports the Theme

As discussed by participants and in previous research literature discussed in this paper, the healthcare workplace is in continual change due to technology. The bottom line is the manager's ability to balance the emotional upheaval that change can cause to

employees, as well as themselves, with the positive outcomes of the change. Not all outcomes, of course, have been positive; a leader needs to affirm the best and downplay the worst.

Job Roles and Changes. Much of the discussion about the technology changes in healthcare has revolved around the unintended consequences for clinicians, in particular, how work flow has changed on the patient floors. In health information management departments, there have been unintended consequences as well. As discussed by the participants, job roles are changing, and most workers need more technical knowledge.

Forrestal (2013) pointed out,

> experts predict many new roles and, correspondingly, new functions for health information professionals. These roles and functions are emerging from the implementation of EHR's and their meaningful use; from adoption of other health information technologies; and from future organizational needs related to project and financial management, globalization, and clinical terminologies and classification systems. (p. 2)

These new roles and functions will mean job redesign for many workers. Although this can be exciting and fun for workers, it can also create angst and conflict. The manager will also undergo changes as their roles change. Forrestal (2013) encouraged managers to provide the leadership to continue to envision the goals, while affirming department and organization values. Forrestal stated, "During envisioning,

experienced leaders should encourage all team members to think globally and beyond their individual functions." (p. 3)

Literature that Goes Beyond the Theme

The value a worker places on his or her role, that is, role salience, may change with new electronic systems, and understanding role salience is important. The health information manager may not have the theory base to support such an understanding, as discussed in Greer and Egan (2012):

> Role salience is a reflection of the importance and value that people place on those roles they determine to be central to their lives and identities. One pivotal aspect of role salience is its influence on how people will fulfill their responsibilities in organizational roles; thus, understanding role salience has meaningful implications for employees and organizations. Because role salience impacts employee behaviors and decisions regarding their role as employee, role salience influences human resource development practices in organizations. (p. 2)

The health information manager, who is managing the change, should look to the human resource development team for their expertise in this area. The extensive changes in healthcare are organization-wide and need a broader perspective.

Another area where the human resource development practitioner can lead the health information manager in practice is in the area of knowledge management. Knowledge management and the areas noted below provide similarities for the broader data governance systems. Song and Chermack (2008) weighed in on the concept of knowledge management as a part of a learning organization. Specifically, regarding

technology, they stated: “From the technology standpoint, however, little attention has been directed to the importance of the human interaction and knowledge sharing processes.” (p. 434) Again, the emphasis is on the collaborative efforts of all human resources to work together.

Lewin’s Theory in Healthcare Changes. The changes occurring in the healthcare environment are staggering in economic and human resources. How a manager perceives and responds to the changes are critical to how they lead others. In many of the changes in the health information management profession, Lewin’s theory of change, that of unfreezing, change, and refreezing, makes good sense. However, the skill set of the health information manager may or may not include the theory behind change management. And the participants did not reflect their experience using Lewin’s change theory. The human resource development practitioner has greater theory based knowledge and could benefit the entire organization by leading training and sharing their expertise in this area.

> Schein (1996) in speaking about Lewin’s change theory, suggested that,
>
> the key to effective change management, then, becomes the ability to balance the amount of threat produced by disconfirming data with enough psychological safety to allow the change target to accept the information, feel the survival anxiety, and become motivated to change. (p. 30)

Choi and Ruona (2011) spoke of Lewin’s theory of unfreezing “include[ing] the process by which organizational members; beliefs and attitudes about change are altered so that they perceive the change as both necessary and likely to be successful” (p. 47).

For instance, in the health information management area, the change from the medical coding system ICD 9 to ICD 10 is causing great anxiety in many departments in healthcare organizations, but such a change is deemed as necessary. Although the normal activities of the worker and the department are disrupted, the workers are readying for the change. In Jing and Jing (2010) this is explained as normative commitment and "is characterized by the mind-set that one has an obligation to pursue a course of action relevant to a target" (p. 465). It is a process of reciprocation. They found that this reduced individuals stress during change.

Jing and Jing found that, "continuance commitment is characterized by the perception that it would be costly to discontinue a course of action" (p. 465). The technological changes in healthcare are an example of the costliness of resisting the change. Even though necessary, continuance commitment has increased individual stress. As discussed earlier, the implications of unintended consequences are significant if workers are not prepared for the changes. Even when seemingly prepared, unusual events, breakdowns in technology, and workflow issues can stymie the workforce. Hughes (2010) suggested that "People and technology are often influenced by the cognitive, behavioral, and/or cultural perspectives established within organizations" (p. 56). A successful organization will have managers and leaders appreciating the importance of being on the same page with the changes. Human resource development practitioners should lead organizational change, rather than each manager determining their role in that area.

McLean (2006), however, cautioned that Lewin's model may no longer be appropriate in today's dynamic environment. He suggested that refreezing may keep an organization from being ready to move as needed for competitive advantage. If this is so, then the health information management field should be prepared for additional changes that will surely confront the profession moving forward.

On Remote Workers. As discussed by the participants, moving transcriptionists and coders off site has been happening for many years. The increase of technology and virtual ways to govern information has impacted the role of the manager in managing remote workers. Human resource development practitioners are in a position to provide training on how to manage remote workers.

Lautsch, Kossek, and Eaton (2009) provided general guidance on managing remote workers. They suggested the following implications for practice:

- Good supervision: don't' increase monitoring—don't monitor telecommuters more than in office workers
- Checking in- frequent contact is beneficial—"telecommuters do seem to benefit when supervisors adjust their approaches in terms of staying in more frequent contact." Two way conversation—not monitoring
- Boundary management—Supervisors should encourage telecommuters to recognize the costs of interruptions and of frequent switching between work and home tasks…this can backfire and employees may want far less interruptions and contact overall.

- Create a culture of rewarding helping behaviors—culture where co-workers help each other out no matter whenever they are working.
- Supervisory approaches and paradoxes in managing telecommuting implementation. (pp. 819-821)

The remote worker needs self-confidence and the ability to work independently. In the health information management department, one functional area stands out where this is particularly important, that of the medical coder. Many functions of the medical coder involve intense intellectual discovery of new knowledge and clinical documentation interpretation. An experienced coder working remotely may have self-efficacy- defined by Bandura (1994) in this way:

> A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. They set themselves challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression. (p. 71)

Staples, Hulland, and Higgins (1999) spoke of the need for remote workers to have self-efficacy which contributes to higher perceived levels of performance and more positive work attitudes. Their research further suggested that the combination of self-efficacy and good management are needed:

> for remote workers to be effective, they need managers who are good communicators. The remote managers must have good listening skills, and need to be able to manage meetings and their employees' time effectively. Being able to use information technology effectively to aid communication is also important, as being available when employees need coaching or other forms of help. Effective remote managers also support their employees' needs for information technology, and support team building and social activities. (p. 772)

Managers, then, will need to feel that they have the training and tools to manage the remote workforce. Bartlett, 2001, suggested that "HRD department personnel should strive to create an environment in which training participation is strongly supported by all employees, especially senior staff" (p. 347). In a healthcare study he found that strategic lining between training and the organizational commitment was essential. (p. 347)

Theme 3: Gender and Sexual Orientation Bias Experiences

This section addresses the third theme that the participants' experiences, those of gender and sexual orientation.

Literature that Supports the Theme

The health information management profession is predominantly female. Little has been written about issues related to differences in wage earnings between men and

women in our profession. Nothing has been written about GLBT concerns in health information management. In the human resource development profession, however, some, albeit a short list, of research or articles have been written on issues related to GLBT, though much has been written about gender and its effect on wages. This section explores gender and sexual orientation bias experiences with the limited resources related to this area.

Gender Bias. Many of the participants spoke about issues of gender as related to wages. There was much discussion by three participants on the nature of masculine dominance. As most of the C-Suite and IT managers are males in the healthcare arena, and participants experienced not being at the decision table, reflected this male dominance. Although the scene is changing somewhat, clinicians are still male dominated.

> Bell, McLaughlin, and Sequeira (2002) provided the following information: Though comprising almost 50% of the U.S. workforce, women occupy only about 30% of all salaried manager positions, 20% of middle manager positions, and about 5% of executive level positions (Bose & Whaley, 2001; Fagenson & Jackson,1993; Rice, 1994). Additionally, "Indeed, 7 of the 10 most common jobs for women are sex segregated (secretaries, cashiers, registered nurses, nursing aides/orderlies/assistants, elementary school teachers, and servers"; Bose & Whaley, 2001). (p. 66)

The American College of Healthcare Executives conducted a survey of random samples of members to compare male and female career attainment. My participants

spoke of gender issues and female career attainment. Lantz (2008) reported that, in their 2006 survey (52% response rate), the median salary of a male in a CEO position was $170,000, while the female salary was $133,400.

Further:

> women executives are much more likely than males to be a department head or fill some other staff position, whereas men are much more likely to be chief executive officer (CEO), chief operating officer (COO), president, or vice president. Among ACHE's executive members the proportion of female CEOS changed insignificantly between surveys: 11 percent in 1990; 8percent in 1995; 11 percent in 2000; and 12 percent in 2006. Further… The male-female salary gap, adjusting for education and experience/time in the workforce, has been stable over time: men earned 18 percent more than women in 1990, 17 percent more in 1995; 19 percent more in 2000, and 18 percent more in 2006. In 2006, nearly one-third (29%) of women said they did not receive fair compensation because of gender, compared to only 1 percent of men. (p. 292)

In addition to the above research, in 1991, the US Congress enacted the Glass Ceiling Act, which established a Commission to explore barriers to management positions for women and underrepresented minorities. This Commission was enacted as part of Title II of the Civil Rights Act of 1991. Called Good for Business: Making Full Use of the Nation's Human Capital Reich (1995) stated the startling inequity was reported as follows:

> In 1992, U.S. Census data reported the ratio of female to male earnings in management jobs ranged from a low of 50 percent in the banking industry to a high of 85 percent for managers in human services. An analysis of 1990 U.S. Census data shows that Black men who hold professional degrees and top management positions earned 79 percent of what white men earn. Black women, also with professional degrees and in top management positions, earn 60 percent of what white men in comparable positions earn. (p. 13)

Other research literature continues to tell the story of the inequities for women in the workforce, which was experienced by the participants. Eagly and Carli 2007 stated,

> It is a well-established fact that men as a group still have the benefit of higher wages and faster promotions. In the United States in 2005, for example, women employed full-time earned 81 cents for every dollar that men earned. Is this true because of discrimination or simply because, with fewer family demands placed on them and longer careers on average, men are able to gain superior qualifications. (p. 2)

Literature that Goes Beyond the Theme

There are areas in the literature where the issues of gender and sexual orientation are explored in more detail than was heard from the participants.

Gender Bias. It is suggested by some that the concept of the glass ceiling is perhaps outdated and could be replaced by the idea of a labyrinth instead. In reflecting on women and leadership, Eagly and Carli (2007 suggested:

Passage through a labyrinth is not simple or direct, but requires persistence, awareness of one's progress, and a careful analysis of the puzzles that lie ahead. It is this meaning that we intend to convey. For women who aspire to top leadership, routes exist but are full of twists and turns, both unexpected and expected. Because all labyrinths have a viable route to the center, it is understood that goals are attainable. The metaphor acknowledges obstacles but is not ultimately discouraging. (p. 2)

It is clear through research that women do not fare well overall when it comes to upward mobility or wages. Consider this case scenario offered by Bierema (2009). Speaking to the human resource development field, she could be speaking of the health information management field as well:

> Close your eyes for a moment and imagine an entry-level HRD. What does this person look like? Now, imagine a senior-level executive of HRD. In each instance, what did you see? Did you imagine a woman or a man? Did you picture a White person or a person of color? and What type of setting did you envision for your imaginary HRD people? It is likely you visualized women at the entry level and a White male at the executive level, both working in corporations. Why do we do that? Our gendered and race-based programming runs deep, just like our narrow views of what HRD is and where HRD is practiced. (p. 78)

Although no specific data could be released from the American Health Information Management Association on the percentage of women as a part of the association, in past informal discussion, it was estimated to be around 90%. That is a major part of the membership that needs additional support around gender bias issues.

GLBT Bias. In the health information management literature, nothing has been written about the GLBT concerns. Human resource development literature has limited research in this area. In the human resource development literature only a few articles have been published. However, in Schmidt, Githen, Rocco and Komanik (2012), it was stated: "For LGBT [GLBT] employees, career development is challenging due to the dilemma of whether to hide or disclose their identity in a multitude of work related interactions" (p. 339).

Diversity training is not mandated in the area of LGBT. They continued, "Without a need for compliance, discussion of sexual orientation and gender identity is omitted from diversity initiatives" (p. 337).

One of our participants left his employment because, once he was identified as gay; he felt that things changed in the way he was treated. The culture was not accepting of his sexual orientation. With up to 3.4% of the population identifying as GLBT by Gates and Newport (2012), the gap in diversity education is a conundrum for HRD professionals and general managers to solve. This 3.4% was based on data from 120,000 people interviewed for a Gallop report.

Components of the Theme not Found in the Literature

Although there are occasional reports on the salaries of the health information manager, there is no research on the inequity of salary by gender and/or comparison of health information job functions to other similar professions.

If we look at the approximated membership of 71,000 in American Health

Information Management Association (2013) and predicted that 3.4% were GLBT/LGBT, it would be 2, 414. Yet no overt support, diversity discussion, or research has been published to provide theses members with additional help.

Theme 4: Commitment to Collaboration

This section reviews the theme of commitment to collaboration that was experienced by the participants.

Literature that Supports the Theme

Perhaps one of the most positive messages that emerged from the research was around the discussions about the professional friendships that were experienced by the participants during their years in the health information management profession. Although there is an emphasis at the national level for health information managers to provide leadership, with many training programs to consider, there is little written about mentoring one another in the workplace. A unique experience of seven participants spoke to the natural mentoring that went on over 30 years.

Twin City Directors Group Experience. Over and over the participants talked about the Twin City Directors Group where they met to mentor, share information about what was happening in their departments, and to share frustrations when needed. In addition, the experiences of professional involvement with the professional health information management associations, at state and national levels were laden with positive messages.

Human resource development literature provides some important information about mentoring. Thurston, D'Abate, and Eddy (2012) found

> First, this study reaffirms that mentoring functions have positive and direct effects on employees' job and organizational attitudes over and above the influence of employee attitudes and abilities. Second, our results indicate perceptions of perceived mentoring are a more important predictor of employee contributions to the organization than employee's perceptions of core self- evaluation. (p. 159)

The participants experienced the positive and direct effects as noted in their discussions. One participant also noted her ongoing mentoring of employees to further their education and was successful in promoting the profession in that way.

The experiences that were described by the participants were about the passion they felt for the profession of health information management. Zigarmi, Nimon, Houston, Witt, and Diehl (2009) provided a definition of passion that fits the discussion:

> We believe a strong operational definition of employee work passion is as follows: employee work passion is an individual's persistent, emotionally positive, meaning-based, state of wellbeing stemming from reoccurring cognitive and affective appraisals of various job and organizational situations that results in consistent, constructive work intentions and behaviors. (p. 310)

The ongoing professional relationships were safe networks for the health information managers. As mentioned, the women participants were a part of a Twin Cities Directors Group. (The male participant was not a director in the Twin Cities.) This was an exclusive group that included only directors of health information management departments. Because of the masculine dominance in healthcare, the networking that the seven women participants did was useful to their continued strength in the workplace.

Literature that Goes Beyond the Theme

The participants who were directors of departments needed to go outside of the organizations to network. The literature does provide knowledge that human resource development practitioners could enhance this networking and mentoring by working within the organization to develop programs to promote this even further. Wang (2009) suggested that,

> Organizational leaders must ensure that mentorship be promoted as an organizational policy mechanism and that women have access to mentoring experiences equal to that of their male counterparts. A number of actions can be taken in this regard. One is to furnish male mentors with education and training that will counteract sexism and sex role stereotyping they may hold against women. Hopefully, by reflecting on their mental model male mentors will be more willing to select women as their protégées. (p. 39)

Further:

> Women's networks are not as extensive as men's, so formal training programs can be used as a way to expand women's networking opportunities. Whether the programs are internal or external, they both offer chances for women to be exposed to new knowledge and larger groups of professionals. In addition, organizations may also consider offering training that will increase women's awareness of the gendered networking differences, their own networking behaviors, and subsequent benefits and risks. The enhanced awareness may

> encourage women to develop wider networks of support and collaboration that are not often made a priority in women's professional lives. (p. 40)

The experiences of the women participants in the Twin Cities Health Information Management Directors Group was that it was rich and provided needed interaction that was not available in the workplace. This long-term relationship seemed to contribute to their satisfaction with their professional roles.

Experiences in Professional Associations. All participants had participated at some level in the state or national professional association. Six of the participants served as President of the Minnesota Health Information Management Association. Two served on the Board of Directors of the American Health Information Management Association. The value of the professional experiences was positively reflected in the interviews.

Anderson and McDaniel (2000) described some of the value of professional organizations:

> a particular organization cannot set the values that govern a [nurses] work. These values are inculcated in training programs and professional associations. One can view a professional organization as a strategy for reducing uncertainty about what *can* be done using professional expertise and what *should* be done using professional values. (p. 84)

All of the participants spoke about their experiences with the state and national associations. The core strength of the associations is the ongoing mandate of continuing education for certification (American Health Information Management, 2013). One area

that has been emphasized for several years is that of technology. Eriksson-Zetterwuist, Lindber, and Styhre (2009) purported that:

> In old and well-instituted and carefully organized professions (the entire field of medicine being a common example), a new technology is generally not a threat to, at least, the core of the professional practices and identity…However, when professional groups are less integrated and organized, the implementation of new technologies may affect the entire field. (p. 1152)

The participants spoke about the issues related to workforce changes. Hertelendy, Fenton, and Griffin (2010) reminded:

> Careerists seeking to make an impact in healthcare invariably view health information management and IT as highly desirable professions. ..The next decade in healthcare is going to require many high-quality HIM and HIT professionals. The necessary workforce simply does not exist. At the same time, standards for education and competency need to remain high so our healthcare system and country can reap the necessary benefits. We need educator to help train the new workers who will be needed into the foreseeable future. (p. 2)

The participants spoke to the importance of education of new professionals. The American Health Information Management Association is addressing the continued educational needs of current and future health information management professionals. A discussion of current trends in this area is provided in Chapter 9.

In the 2014-2017 Strategic Plan of the American Health Information Management Association (2013), five goals have been outlined to influence its direction in the next 3-5 years (in no direct order):

1. Informatics
2. Leadership
3. Innovation
4. Public good
5. Information governance (p. 3)

A pertinent statement in the strategic goal document reflects the discussion experiences of participants: "It is only through collaboration that the goals in this plan can be achieved" (p. 4). The participants' experiences reflected the importance of collaboration not only in personal achievement, but also in collective achievement.

The strategic plan outlines many of the same issues that have been illuminated in this research. Among them are the issues of need for data integrity in big data electronic healthcare systems and software environment, aging workforce but a growing need for new workers, use of data for public health or population management, issues of globalization, external legislative regulations, and trends in patient empowerment. Further the report discusses the social and political value issues of continuing to engage professionals in volunteerism, and competing with other professional and trade organizations.

Components of Theme Not Covered in Literature

No qualitative research has been done about health information managers and volunteerism. The experiences as described from the participants in professionalism are of those who have long histories with volunteerism in the profession. This is not covered in the literature.

The ongoing work/life balance in a competitive and ever changing healthcare environment probes the question of whether any professional is capable of the intense but important work that is sought by professional organizations like the American Health Information Management Association.

The participants did not address directly their roles in mentoring other women managers or employees in their departments. Individuals may have developed means to do this. However, that is not known.

Summary

There is little original research published about health information managers with extended experiences. There is research from other areas to support the themes of the participants. The American Health Information Management Association does have a strategic plan that provided some additional information to support this research. Nevertheless, this research has surfaced many new areas that have not been explored in research in the field of health information management. While not generalizable, the findings of this research do signal many areas that deserve further attention and research in the field.

CHAPTER 9

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This chapter contains a summary of the study, discussion, conclusions, and recommendations for practice, theory, policy, and future research.

Summary

This research focused on credentialed health information managers with 20+ years of experiences. Eight participants were interviewed, with seven of the credentialed health information managers having 30+ years of experience. All practitioners worked in a healthcare organization some time in their career where there was a paper-based health record. With their leadership, they were a part of the implementation to an electronic health record.

One question was posed to the participants: What experiences have you had during your 20+ years as a credentialed health information management practitioner? Four themes were verified by the participants: 1. Commitment to Data Quality, 2. Managing a Workforce in the Electronic Health Record environment, 3. Gender and Sexual Orientation bias Experiences and 4. Commitment to Collaboration.

The healthcare industry is experiencing monumental changes since the U.S. government, through the HITECH ACT of 2009, mandated the implementation of electronic health records for those organizations that wish to receive Medicare and Medicaid funding. Health information managers are in a position to lead during the implementation as identified by our participants. All of the participants articulated the importance of data quality, which is inherent in information governance.

Several of the participants mentioned the importance of education that meets current needs for workers in health information management. However, the participants did not mention utilizing human resource development professionals to help with the training or transition needed for the electronic health record systems.

The themes from the participants' experience, for the most part, are consistent with the strategic goals and of the curriculum components for all levels of health information management as presented by the AHIMA.

Discussion

In the area of strategic goals for the health information management industry, and work that is to be done in the practice of health information management, the next three years will be challenging to practitioners as new software, technology, and organizational changes occurs. Who will do the work that is not yet accomplished? Although it was clear from the participants that they value professional volunteer involvement, it is critical to seek new volunteers to take on some of the work of the profession. It is estimated by AHIMA (2011) that

> The aging workforce will have an impact on supply and demand of HIM professional. It is estimated that 6,000 new HIM workers are needed each year to fill new positions and replaces those who retire or leave the field...the profession has been slow to replace and prepare younger members…further…Without member engagement, it will become more difficult to manage member expectations and leverage expertise. (p. 8)

Similar to AHIMA, the AHRD has work to be accomplished, and many more volunteers are needed. The President's report to the membership of Academy of Human Resource Development (2013) stated that, given the number of members: "This year, the Board returned to a core strategic discussion of how we focus our energies toward our vision and mission, and how such a drive influences key decisions related to our deliverables" (p.1).

The participants in this research were enthusiastic about their experiences. But six of the participants were nearing traditional retirement age within the next five years; one has stayed in her professional role for several years beyond traditional retirement age. With the competition of other like-minded professions (e.g., health information technology, nursing informaticians, physician informaticians, and so on), the challenge to educate new health information management workers is staggering. Fighting for the right to be at the decision table will continue to impact our perceived role in healthcare organizations.

In this study most of the participants' experiences had been in acute care transition to the electronic health record. However, in anecdotal discussion with these participants and other colleagues working in the healthcare information management environment, the burgeoning of office-based electronic health record systems are spurring new pathways for health information management credentialed workers.

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The participants discussed their experiences with volunteerism within the national associations and their commitment to education. The themes of the participants are

aligned with the strategic goals of the American Health Information Management Association, except for one; that is, the goal of innovation.

The participants' experiences clearly focused on collecting quality health care data that can be used to improve the safety and quality of patient care. Although legislation influences data collection, the role and intention of the health information manager participants were clearly quality of data as embedded in the strategic goals.

The professional association of health information managers, the American Health Information Management Association (AHIMA), reflects the participants' theme of data quality. Table 2 lists the AHIMA (2013) strategic management goals and a brief description of their meaning. In the next section, I will discuss how the new goals and the themes from the participants line up for the future.

Table 2

AHIMA Strategic Goals 2014 with Description

AHIMA Goal	Description
Informatics	Transform data into health intelligence
Information Governance	Be recognized as the experts in health information governance
Leadership	Develop HIM leaders across all healthcare sectors
Innovation	Increase thought leadership and evidence-based HIM research
Public Good	Empower consumers to optimize their health through management of their personal information

Note: Table created from data found in 2014-2017 Strategic Plan American Health Information Management Association (2013)

Comparison of Strategic Goals to Participants' Themes

As discussed by the participants, their experiences in professional associations as volunteers were very important. I have compared the 2014-2017 strategic management goals of the American Health Information Management Association (AHIMA) to the themes of the participants (see Table 3) in order to determine how much it appears that professional practice has changed and where it needs to change in the future if the participants' experiences prove to be indicative of the profession

Table 3

Comparison of AHIMA Strategic Goals to Participants' Themes

AHIMA Goal	Participant Themes
Informatics	Theme 1: Commitment to Data Quality
Information Governance	Theme 1: Commitment to Data Quality Theme 4: Commitment to Collaboration
Leadership	Theme 2: Managing a Workforce in the EHR Environment Theme 3: Gender, Sexual Orientation
Innovation	Not included in Themes
Public Good	Theme 1: Commitment (Patient Safety Only)

Note: Table created from data found in 2014-2017 Strategic Plan American Health Information Management Association (2013)

Based on the participants' experiences, the themes can be aligned with the AHIMA strategic goals as noted in table 3. The first three goals listed in table 3 line up very well with the participant themes. The participants are all actively working in the field, and the experiences that they discussed are clearly in concert with the new strategic goals. This is not a surprise because, as discussed early in this study, the health information manager, whether called a medical record librarian, health information administrator, or medical record clerk, has led the way in data acquisition and

dissemination and has been the go to person on all of the legislation that governs the health record. They were, and still are the custodian of the health record.

Public Good Goal Needs Some Evaluation

In terms of the strategic goal, Public Good, the Health Information Manager, because of their custodial role and data quality focus, protects the public good by promoting high quality information use. The strategic goal that AHIMA stressed, however, is broader than the experiences shared by the participants. The AHIMA 2014-2017 Strategic Goals, Public Good includes, "Empower consumers to optimize their health through management of their personal information" (p. 3). This empowerment includes:

1. Partner with industry allies to create functional HIM/HIT standards for interoperability and to advocate for their consistent application
2. Build consumer and industry awareness barriers to accessing health information.
3. Decrease consumer barriers to accessing their information
4. Contribute to globalization of health data and the needs of developing countries
5. Inspire confidence and trust in the accuracy and security of health information to the point where it is naturally assumed. (p. 19)

Aligning with Industry Allies

The participants' experiences did align them with collaboration with industry partners as far as the implementation of the electronic health record systems were

concerned. But as explained by the participants, their attempts to be at the decision table were not always successful. As discussed in several of the theme areas, many things seemed to get in the way of this happening from lack of knowledge from others of the health information managers expertise (either internally or by external software vendors), lack of leadership by some health information managers who were not stepping up to the plate, and masculine dominance and female gender issues.

In practice, then, how will health information managers of the future be able to get noticed at the level the participants felt they deserved? I believe part of the solution will be ongoing everyday leadership providing the most meaningful information at the right time to the right person. Determining who is the right person, though, has been a dilemma for as long as I have been in the field.

The use of the terms *informatics* or the phrase *big data* and *predictive analytics* seem to be the new jargon for the age of the electronic health record. Although, in the past, the health information manager held the key to the data and the information in a paper-based system, it is not so in the digital environment. Informatics, big data, and predictive analytics belong to whoever can get permission from their facility to mine the data that are being collected. Certainly, if research is being done, the Institutional Review Board gets involved. But, many managers have, at their fingertips, access to data and can easily use statistical analytical tools to make their case for new equipment, new software, and quality of care decisions. This proliferation of users, which is good if the intention is to improve quality care, usurps from the health information manager some of their power of data management.

Consumer Involvement

The traditional role of the health information management department has been to release medical information from the paper medical record. This included release of information to the patient, attorneys, and third party payers. This is still a primary function of the health information management department. Before releasing information, the person performing the function of release of information needs to make sure that there is a valid consent to release the information. The privacy rules from the U.S. government are clear on this.

The function, though, is much more difficult than just checking for a consent form. As many of the EHRs did not include a health information manager on the development team, they did not think about the back end process of the basic printing function or even copy and paste function. So, to provide good consumer access to their health information (either for themselves or a third party), it takes a careful eye to discern what is possible to extract from the EHR. The headaches that have emerged because of this are serious and costly.

The health information manager, however, has other roles in consumer awareness and access. New roles are emerging for managing the patient portals into the electronic health record. The clinical staff cannot be able to answer all of the patient's questions when they see something in their patient portal. Although no one but the physician is supposed to interpret the data that are posted to the patient portal, someone needs to be able to provide some direction to the patient when they need questions answered. The

healthcare system has not solved this issue yet. And the health information manager should be sitting on or leading the project team that does work on this issue.

The emphasis on the Public Good goal is to empower the patient, not to disempower the physician. Rather, the emphasis is on partnering with the physician and other clinicians and the overall healthcare systems to understand and be more proactive in their own care.

Contribute to Globalization of Health Data and the Needs of Developing Countries

The AHIMA used to have an active global office in Europe, but budget cuts disbanded that office. Although the association is a member of the International Federation of Health Information Management Associations and has several leaders involved in committees of the World Health Organization and international healthcare standards committees, there seems to be a long way to go for progress in this area. Two of the participants have experience as international consultants. One is a part of an international software firm. I know only of a few people, including myself, that are working on international medical record projects. If health information management is to lead in this area, it will take much more than a statement under public good. It will take strong commitment by the national organization to fund health information management leaders to work on international projects involving the consumer.

Increase Thought Leadership and Evidence-based HIM Research

Calhoun, Rudman, and Watzlaf (2012), in Vision 2016 of the American Health Information Management Association, highly recommended that more graduate level masters programs be developed. At one point, at several state and national meetings, it

was discussed and vehemently disregarded that the entry level to the profession be at the master's level. Anecdotally, some of the reasons it was eliminated as a possibility was that the membership was ill-equipped with PhDs who could develop, direct, and manage master's level health information management programs. Additionally, many bachelor's programs were in colleges and universities are not accredited for levels above bachelor's education.

The AHIMA has the need to increase the number of credentialed members (e.g., RHIA, RHIT) with advanced degrees, particularly at the doctoral level. As noted in Brodnik, Valerius, and Watzlaf (2013):

> Approximately 0.48 percent of AHIMA members (322 out of 67,000 members) have a doctorate degree. Of this number, 40-43 percent work as an educator or in an educational institution. Other members have educational degrees in law or medicine (JD=138 members, MD=381 members) including 0.21 percent with a JD and 0.57 percent with a MD. Members who have one of the advanced degrees and an AHIMA credential make up an even smaller percent with 0.26 percent with a PhD (173 out of 67,000 members), 0.29 percent with a MD (197 out of 67,000 members), and 0.094 percent with a JD (63 out of 67,000 members). The need to increase these numbers is imperative if the HIM profession is to move toward advanced degrees. (p. 80)

Until the summer of 2013, the association had one peer reviewed research journal, with only a few of the articles involving original research of the authors who are credentialed health information practitioners (e.g., RHIA, RHIT). This summer, a peer-

reviewed education journal was started. Members may have published in other journals, but there is no data base that would tell us that. In my research there were no studies of a qualitative nature published and only a few available that were evidence-based. The Journal of the American Health Information Management Association is not peer reviewed. It is an educational tool; some might call it more of a trade journal.

As an educator, I have heard many potential credentialed health information management professionals lament that moving to a graduate level is too costly. Many have mentioned that there are few on-line PhD programs that would prepare them to teach at a graduate level. Those who work in large universities, have informally discussed that it is nearly impossible to get a doctoral program approved for on-line education. This, then, limits the number of professionals who will go on for the advanced degree. This is limiting to the profession.

The participants felt that bachelor's programs in health information management should include more information technology. The AHIMA has recently developed a draft curricular grid (American Health Information Management Association, 2013) comparing associate's, bachelor's, and graduate degrees for health information management. Table 4 compares the curriculum draft components to the themes of this research. The component level of knowledge and skill change from each level of education using Bloom's Taxonomy (Anderson & Krathwohl, 2001) with level s 1-4 primarily noted in the associate's education; 4-5 primarily in the bachelor's education; and mostly 5-6 in the graduate level education. The bachelor's level is intended to include a greater number of higher-level information technology components.

Until more PhDs are educated, do research (including that with practitioners), and publish, the field of health information management will continue to be undermined and its practitioners unnoticed. The challenge is difficult and has been well stated by many of the participants. Can we be at the decision table if we are not visible and viable without higher degrees?

Table 4

Comparison of Draft Curriculum to Participants' Themes

Draft Curriculum Components-AHIMA	**Participant Themes**
I Health Data Management (Data governance, Data Management, Secondary Sources)	Theme 1: Commitment to Data Quality
II. Information Protection: Access, disclosure, archival, privacy and security)	Theme 1: Commitment to Data Quality
Informatics, Analytics, and Data Use(technologies, strategic management, analytics and decision support, health care statistics, research methods, health information exchange, Information Integrity and data quality)	Theme 2: Managing a Workforce in the EHR environment
Revenue Cycle and Reimbursement	Theme 1: Commitment to Data Quality Theme 2: Managing a Workforce in the EHR environment
No Curriculum Piece	Theme 3: Gender, Sexual Orientation

Note: Column One from American Health Information Management Association. (2013). Draft Progression map of Associate, Baccalaureate, and Graduate Curricula

Human Resource Development Practice

The participants did not share any experiences of working with human resource development practitioners in their institutions. Their concerns in the area of collaboration were primarily with the health IT department and in sitting at the decision table for the implementation for the electronic health record.

As a person having studied human resource development over the last many years, I am aware that partnering with human resource development practitioners would be helpful during organizational change. In my experience, health information managers utilize human resource mainly for hiring and firing issues. Except for overall compliance training, it has been my experience that human resource development is underutilized.

Comparison of Two Professions

Membership in the American Health Information Management Association (AHIMA) is estimated at 67,000 and the Academy of Human Resource Development (AHRD, 2013) is 700+. While the AHIMA was founded 85 years ago, AHRD was founded 20 years ago. But in those 20 years, AHRD has accomplished something AHIMA is still struggling to do; that of producing extensive research on practice. In Addition, AHRD has four peer reviewed journals, while AHIMA has two, with one starting this summer. AHRD has three international peer-reviewed international research conferences, while AHMA is a member of one. AHIMA could learn a great deal by collaborating with a field that supports the health information manager.

Model Curriculum Comparison

The AHIMA has developed model curriculum and credentialing exams; AHRD has developed some core theories of what should go into a graduate program in human resource development. Both curricula appear to have some overlap, but there are some areas in AHRD that AHIMA does not cover. Those areas are noted in Table 5. What is not covered or minimally covered in the AHIMA curriculum are areas the health information manager could utilize with a human resource development team. Although a basic management course in a health information management program may cover adult learning, design and delivery of learning, and organizational change, it does not cover it in the depth of human resource development programs.

What appears to be lacking in the implementation of the electronic health record from the perspective of the participants is inclusiveness of all departments. After an extensive literature search, I found zero research articles on human resource development and the implementation of the electronic health record in the United States. Although there may be some articles on training for electronic health record implementation, it is not from the viewpoint of the human resource development practice. It is from a technical viewpoint. I found zero research on change management in healthcare related to electronic health records.

The gaps in both AHIMA and AHRD in the area of original quantitative or qualitative research in the area of implementation of the electronic health record are startling. The research is primarily on clinical areas (doctors, nurses) and the unintended

consequences of change to the electronic health record. That research is qualitative and has been done by informaticians and focuses on the human interaction with the computer.

Table 5

Comparison of Two Professions

AHRD Core Theory in Graduate Level Education	**AHIMA Draft Curriculum Components at graduate level**
Analysis and assessment	Covered
Design and development of interventions	Covered
Measurement and evaluation	Covered
Organization development and change	Minimal coverage
Improving human performance	Covered
Organizational learning and knowledge management	Covered
Career development and talent management	No curricular component
Managing the HRD function	No curricular component
Consulting	No curricular component
Adult learning	No curricular component
Design and Delivery of learning	No curricular component
Ethics in HRD and Organization	Covered
Organizational Behavior	Covered

Note: Column one comes from Standards for HRD Graduate Program Excellence Proposed to Board of Directors Proposal 2008, Academy of Human Resource Development (2013); column two comes from American Health Information Management Association. (2013). Draft Progression map of Associate, Baccalaureate, and Graduate Curricula

Conclusions

As a phenomenological study, conclusions can be drawn only about the experiences of the participants interviewed for this study. It is then essential to follow up on these conclusions to determine if the experience of these 8 health information managers has a broader application. Thus, the experience of these participants that might need further research include:

1. The participants were committed to the quality and privacy of patient data.
2. The participants were committed to educating the workforce with skills needed for working with electronic health records.
3. The participants were committed to finding ways to be recognized as leaders who could provide leadership during the implementation to an electronic health record system.
4. The participants were committed to seeking equitable pay for men and women.
5. The participants were committed to diversity, including women and GLBT members of the workforce.
6. The participants were committed to collaboration with other health information managers and with other members of the healthcare team.
7. The participants were committed to professional leadership and volunteerism.
8. The participants were committed to changing higher education to meet the needs of the workforce.

9. All participants have had positive experiences in their careers as health information managers.
10. Participants expressed some nostalgia for the paper-based records and processes.
11. Participants expressed some concern over their perceptions about some loss of control of the electronic medical records.

Recommendations

Because the findings of this study cannot be generalized, it is not possible to make firm recommendations. However, if the experiences of these participants can be confirmed as applying more widely possible recommendations for practice, theory, policy, and future research.

Recommendations for Practice

These recommendations are based on recommendations made by the participants during their interviews. Whether or not they are valid recommendations are subject to individual situations and collaborative decision making.

1. Health information managers should take the lead in efforts in data quality management and privacy.
2. Health information managers should be proactive in collaborating among themselves and with other members of the healthcare team.
3. Health information managers might market their knowledge and skills to the C-suite so that they are included in decisions related to healthcare information.

4. Health information managers need to continue to provide leadership within state and national associations and create a culture whereby new entrants to the field and other employees, including managers, also to make such a commitment.
5. Health information managers need to seek ways to be mentored and to mentor others when new skills and knowledge are needed.

Recommendations for Theory

Most theories used in the field of health information management draw on theories from the field of management. There are no theories that have been identified that are unique to the field of health information management. Thus, these recommendations point to the development of specific theories within the field to begin its development into an academic discipline. Because of the nature of this research (phenomenological), there are no direct contributions to theory.

1. Identify basic theories that relate to information management that are either unique to the field or are modified from other fields.
2. Develop advanced theory on health record management in an electronic health environment.
3. Develop advanced theory in information governance, including data quality and privacy.
4. Develop advanced theory in data analytics and systems integration.

Recommendations for Policy

Some of the comments by the study participants suggest ways in which policies controlling the implementation of electronic health record systems could improve the systems. Both of these recommendations are directed to action that could be taken by the American Health Information Management Association to improve the way in which the implementation of electronic health record system is taking place.

1. Pose legislation to continue workforce training in electronic health records with an emphasis on information governance personnel (health information management practitioners).
2. Pose legislation for the National Institute of Health or the Agency for Health Research and Quality to study the effectiveness of the electronic health record education implementation for clinical and non-clinical workers.

Recommendations for Future Research

The ever changing and advancing healthcare system was startled by the mandated implementation of electronic health record systems. The emotional impact on individual practitioners continues to be under-researched. The impact on departmental collaboration efforts is yet to be researched. Future research to uncover and discover the dramatic system change to individuals and collaborating departments is essential.

Phenomenological research often suggests other research that could be done to develop greater understanding of the field. The following research studies might be useful in developing our understanding of the field of information management.

1. Qualitative research on credentialed health information managers with fewer than five years' experiences in the field exploring their experiences with paper-based and electronic health record systems
2. This study looked at those who have worked with paper-based health records for a large part of their professional lives. We do not know how newer professionals view the use of the electronic health record, their experiences with it, and what recommendations could come out of a qualitative study about their experiences. The educational process is dynamic and the experiences of newer professionals would be helpful to the profession.
3. Quantitative research, using a survey based on the experiences of these participants, might be undertaken within the [professional organization.]
4. The collaboration mentioned by the participants could be explored further: what factors influence the parties with whom they collaborate? What additional collaboration do they wish? What do they bring to the collaboration? What do they expect to gain from the collaboration? This could be undertaken through either qualitative or quantitative research.
5. Rather than focusing on managers, as this study did, similar research could be conducted by looking at the experiences of the non-clinical workforce involved in some way in the information management of electronic health records.
6. Conduct similar research looking at experiences with the clinical workforce, not yet studied; e.g. nurses, pharmacists.

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APPENDIX A: CONSENT FORM

Study Number: 1202P10801 Principal Investigator: Joanne Valerius
Title: Experiences of Long-Term Credentialed Health Information Managers, with Implications for HRD

Consent Form

Purpose of Research: The purpose of this research is to study the experience of credentialed Health Information Managers with 20 plus years of experience in healthcare.
Criteria for selection: You are a manager who holds a Registered Health Information Administrator (RHIA) or Registered Health Information Technician (RHIT) credential. You have worked in a paper-based medical record environment and an electronic health record environment.

You agree to participate in the following ways:

1. Participate in a one-hour audio-taped interview.
2. Review transcript of the interview for accuracy.
3. Review themes from all participants based on my review and provide comments on accuracy.

The timeline for this research is not more than twelve months.

Risks: There are no foreseeable risks; you will not be identified by name, nor will their facility be named.

Benefits: The summary of the research will be used to inform Health Information Management educators about the experience of long-term credentialed Health Information Managers in order to provide students with current information and an historical perspective on the field of health information management. There is no direct benefit to the subjects who participate in this study.

Confidentiality of data and privacy of participants: The interviews will be audio-taped and transcribed. All communications will be through email and at a place of your choosing. Your identity and the identity of your healthcare organization will be confidential and names will be excluded from the summary reports or any publication based on the research. Audio-tapes will be destroyed two years after the conclusion of the research project.

Consent for participation:
I, _____ (name of participant), meet the criteria listed above. I agree to the participation as outlined above. I understand the risks and benefits of the research. I agree to the confidentiality and privacy statement for this research.
Signed_____ Dated_____

Researcher's Signature _____ Dated: _____
Revised: March 26, 2012

APPENDIX B: IRB APPROVAL LETTER

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Human Research Protection Program
Office of the Vice President for Research

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04/02/2012

Joanne D Valerius
Work/Human Resource Educa
Room 210 VoTech
1954 Buford Ave
St Paul, MN 55108

RE. "Experiences of Long-Term Credentialed Health Information Managers, with Implications for HRD"
IRB Code Number: **1202P10801**

Dear Ms. Valerius:

The Institutional Review Board (IRB) received your response to its stipulations. Since this information satisfies the federal criteria for approval at 45CFR46.111 and the requirements set by the IRB, final approval for the project is noted in our files. Upon receipt of this letter, you may begin your research.

IRB approval of this study includes the consent form dated March 26, 2012.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 10 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

For your records and for grant certification purposes, the approval date for the referenced project is March 14, 2012 and the Assurance of Compliance number is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003). Research projects are subject to continuing review and renewal; approval will expire one year from that date. You will receive a report form two months before the expiration date. If you would like us to send certification of approval to a funding agency, please tell us the name and address of your contact person at the agency.

As Principal Investigator of this project, you are required by federal regulations to inform the IRB of any proposed changes in your research that will affect human subjects. Changes should not be initiated until written IRB approval is received. Unanticipated problems or serious unexpected adverse events should be reported to the IRB as they occur.

The IRB wishes you success with this research. If you have questions, please call the IRB office at 612-626-5654.

Sincerely,

Christina Dobrovolny, CIP
Research Compliance Supervisor
CD/ks

CC: Gary McLean